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THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THIRD SERIES VOLUME SIXTY-ONE NUMBER SEVEN TWO SHILLINGS AND SIXPENCE
66 PORTLAND PLACE LONDON W1 TELEPHONE: LANGHAM 5721-7 TELEGRAMS: RIBAZO WESDO LONDON

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Mr. C. H. Aslin, C.B.E., President 1954–55

Mr. C. H. Aslin, C.B.E., County Architect for Hertfordshire, has been elected unopposed as President for the forthcoming session. Born on 15 December 1893, Mr. Aslin's architectural education began at Sheffield in 1910, where he was articled to a local architect, and attended the Sheffield University Department of Architecture.

He served in H.M. Forces throughout the first world war, obtaining, upon demobilisation, a post with the Sheffield City Architect, which he held until 1922. From then until 1926 he was architect to the County Borough of Rotherham, and from 1926–29 Deputy County Architect of Hampshire.

After 16 years as Borough Architect of Derby, Mr. Aslin became County Architect of Hertfordshire in 1945. At Derby his office carried out work for all the committees of the local authority which included schools, hospitals, police buildings and housing. One of his tasks there was to carry out the Central Improvement Scheme, which consisted in clearing a large area of the banks of the River Derwent, and building there a 'bus station, river gardens, open markets, police courts and new municipal offices.

Under his leadership at Hertford great advances have been made by the Hertfordshire County Council in their building programme, and particularly in school construction, in which Mr. Aslin has made extensive use of prefabricated units to overcome the acute shortage of site labour, steel and timber. This system of construction has aroused great interest abroad. In 1951 he was awarded the R.I.B.A. Architecture Bronze Medal in the area of the Essex, Cambridge and Hertfordshire Society for designing Templewood School, Welwyn Garden City. The same year he was awarded the C.B.E.

Mr. Aslin was elected Associate in 1920 and Fellow in 1932; he has been a member of the Institution of Structural Engineers since 1925. Since 1945 he has served on the Council of the R.I.B.A. and was a Vice-President 1948–50 and from 1952 to 1954. He served on the Salaried and Official Architects Committee from its formation until June 1952 and was its first Chairman. He has also been a member of the Finance and House Committee. He is at present a member of the Executive Committee, the Practice Committee, the Professional Conduct Committee and the U.K. Committee of the International Union of Architects. He is one of the Institute's representatives on the Joint Consultative Committee of Architects and Builders. Mr. Aslin was President of the Nottingham, Derby and Lincoln Architectural Society from 1941–43, and is a former member of the Architects' Registration Council of the United Kingdom.

Representation of Members and Students in Salaried Employment

The Council have received from the statisticians the analysis of the replies to the questionnaire sent out to members and Students in the United Kingdom. A summary of this analysis is published on page 256.

The Council are now reviewing all aspects of the situation and are considering what steps it might be appropriate to take.

Mr. J. R. McKay

Mr. John Ross McKay [*F*] has been elected Academician of the Royal Scottish Academy.

Joint Committee of Architects, Quantity Surveyors and Builders

The following R.I.B.A. members were appointed to the new Joint Committee of Architects, Quantity Surveyors and Builders, formed to follow up the report of the Joint Committee on Tendering Procedure and productivity matters generally: The President, C. H. Aslin, C.B.E. [*F*], A. R. F. Anderson [*F*], Harold Conolly [*F*], F. Charles Saxon, M.C., F.R.I.C.S. [*F*], Michael Waterhouse, C.B.E., M.C. [*F*].

Architectural Copyright

Attention has been drawn recently to a number of instances in which local authorities have inserted in the draft service agreement with private architects a clause providing for the copyright in the drawings and works to vest in the council of the local authority employer.

Such a clause raises an important matter of principle having regard to the fact that, except by an express assignment on his part, the architect cannot be deprived of the protection afforded by the Copyright Act, 1911, in respect of the ownership of the copyright.

Members are warned to consider this point carefully before signing any service agreement with a local authority and are advised of the view of the Institute that any such assignment should be a matter for a separate transaction for a separate consideration to be agreed mutually between the employer and the architect.

The A.B.S. Ball

The Rt. Hon. Sir David Eccles, K.C.V.O., Minister of Works, has consented to be Patron of this year's Architects' Benevolent Society Ball which is to be held on Thursday 9 December. The Ball Committee also announce that it is to be held at Grosvenor House. The move from the Dorchester Hotel has had to be made because larger accommodation is now needed; last year all tickets were sold a fortnight before the day of the Ball. More than 200 applications for tickets have already been received for this year's Ball.

The Ball is in aid of the Fund for Old People's Homes. The profits from the last Ball, amounting to £2,350, have now brought the Fund to £15,645, and the announcement of a competition for the design of the Homes is expected shortly.

Architects are reminded that this Fund is separate from the ordinary Funds of the Society, which continue to need regular support.

West Suffolk Architectural Award

The West Suffolk County Council have set up a county award to architects and builders responsible for buildings erected by private enterprise in the county during the year 1953. There are two classes, residential and other buildings. The objects are to encourage good local architecture and to stimulate public interest in it, to foster design and craftsmanship and to encourage developers to employ architects.

Architects wishing to enter should submit drawings of buildings completed during the year to the County Planning Officer, Shire Hall, Bury St. Edmunds, by 1 June. Each set of drawings should be accompanied by an application form obtainable from the above address.

National Park Week in Pembrokeshire

The Council for the Promotion of Field Studies, in collaboration with the Pembrokeshire National Park Committee and with the support of the National Parks Commission, have arranged a National Park Week at Haverfordwest from 18 to 25 August. The aim is to spread knowledge of the Pembroke Coast as a National Park and of its flora, fauna and ancient monuments. There will be a study course on national park development and administration. Hostel accommodation, meals and excursions are covered by a fee of six guineas. Details from the Warden of Dale Fort Field Centre or the Clerk of the County Council, Council Offices, Haverfordwest. Reservations should be made before 30 May.

Forthcoming R.I.B.A. Conference on the Design of Health Buildings

The Council have decided to hold a Conference on Health Buildings at the Royal Institute on 21 and 22 October. The Minister of Health, the Right Hon. Iain Macleod, M.P., has accepted an invitation to open it.

The Conference is intended to cover broadly the whole field of health buildings, including child welfare centres, school clinics and aged persons' homes in addition to hospital buildings of various types. A programme of papers by distinguished speakers who are expert in the various aspects of the subject is being drawn up.

The R.I.B.A. Hospitals Committee which recommended the Council to hold the Conference hope that it will be of service to younger members of the profession who are attracted to this highly specialised work. Further details will be published next month.

Forthcoming R.I.B.A. Exhibitions

The R.I.B.A. are to hold two further exhibitions at 66 Portland Place later this year. The first will cover a wide field of contemporary architecture in the various forms of concrete construction. It is being sponsored by the Joint Committee on Structural Concrete and will be shown during October.

The second exhibition is of post-war architecture in Western Germany. It is being sponsored by the German Diplomatic Mission on behalf of the Bonn Government and will be on view during December.

The Australian Building Productivity Team

A team of Australian architects, builders, manufacturers and specialists recently visited Great Britain in the course of a tour to various countries to study production methods and new materials. In the course of a full itinerary which included visits to B.R.S. and Crawley New Town they held a meeting in the Council Room of the R.I.B.A. where they were met by Mr. E. D. Jefferiss Mathews, O.B.E., Vice-President, and Mr. Howard V. Lobb, C.B.E. [*F*]. They were also entertained at a cocktail party.

The Council have received with appreciation the gift of a tray, of Australian wood, presented by Lt.-Col. W. R. G. Longmuir, leader of the team.

The architect members of the team were: Professor B. Lewis, M.A. [*F*], Dean of the Faculty of Architecture, Melbourne University, who was deputy leader, Mr. O. A. Bayne, F.R.A.I.A. [*A*], Mr. D. C. Ward, F.R.A.I.A., Mr. H. T. Griggs, F.R.A.I.A. [*A*], Mr. B. L. Dechaineux, F.R.A.I.A., and Mr. C. E. Philp, F.R.A.I.A. [*F*].

Vacational Employment of Students

Members are once again reminded of the Institute's yearly scheme for helping students to obtain temporary employment in architects' offices during the summer vacation. Since this scheme was started eight years ago, the number of members notifying the Institute of their willingness to offer such employment has been progressively diminishing; and for the last three years it has been possible to find places only for a minority of the students who seek the help of the Institute in finding such employment. It is very much hoped, therefore, that the response this year will be sufficient to enable the Institute to accommodate most of the students who apply. Members willing to co-operate in the scheme should notify the Secretary without delay, giving particulars under the following headings: (*a*) period for which employment is offered, (*b*) number of students that can be employed during the period, and (*c*) a range of remuneration.

Sir Hugh Casson

Sir Hugh Casson [*F*] has been elected a member of the Royal Danish Academy.

President of the A.A. 1954–55

Mr. Peter Shepheard, B.Arch., A.M.T.P.I. [*A*], has been elected unopposed as President of the Architectural Association for the year 1954–55. Born in 1913, he was educated at Birkenhead School and received his architectural training at Liverpool University School of Architecture where he graduated with First Class Honours in 1936. In 1936–37 he was University Graduate Scholar in the Department of Civic Design.

After being assistant to Derek Bridgwater [*F*], he worked during the war on the design of Royal Ordnance factories and later in the Ministry of Town and Country Planning, first on Sir Patrick Abercrombie's staff for the Greater London Plan and then in the technical division where he worked under Gordon Stephenson [*F*] on the master plan of Stevenage New Town. In 1947 he was appointed Deputy Chief Architect to the Stevenage Development Corporation but resigned in 1948 to become partner of Derek Bridgwater in private practice of architecture, town planning and landscape design.

His work includes housing for the L.C.C., and other authorities including part of Lansbury neighbourhood; schools at Abingdon, Langley and Lewisham; a college of further education at Windsor. He undertook landscape design at the South Bank Exhibition and has designed gardens for L.C.C. schools and a roof garden on the Time and Life Building, Bond Street. He has also built branch banks in Victoria Street and Golders Green.

Domestic Plumbing: Protection against Frost

The Ministry of Housing and Local Government have been in communication with the Council in regard to the extensive damage suffered by domestic plumbing in the recent severe frosts. The Ministry have asked the Council to consider what additional steps can be taken to bring to the notice of the public generally the importance of adequate protection of domestic water systems.

With the approval of the Council, the Science Committee have set up a Sub-Committee to carry out a review of the damage sustained and to make an analysis under various categories. The work may take some time, and it is intended to consult the Building Research Station on various points.

In the meantime, members are advised to bring to the attention of clients the advice published by the Ministries of Housing and Local Government and Works from 1944 onwards in Housing Manuals, Technical Appendices; especially Appendix G to the Housing Manual, 1949; and the Post-war Building Study on Plumbing. The Ministry say they are satisfied that if the recommendations contained in those publications are properly applied they should give adequate protection against climatic conditions normally to be expected in this country.

R.I.B.A. Architecture Bronze Medal: The Devon and Cornwall Society of Architects

The Jury of the Devon and Cornwall Society of Architects have made their award for the 3-year period ending 31 December 1953 in favour of the Canteen Building of Messrs. Tecalemit, Plymouth, designed by H. F. Walls [*A*] and C. H. P. Pearn [*A*].

Discussion on Model Building Bye-laws

At the General Meeting on 15 June, Mr. Richard A. Simons of the staff of the Building Research Station is to introduce a discussion on model building bye-laws. He has been engaged for some years on the preparation of Codes of Practice and building regulations. He was an assessor on the committees which drafted the post-war model bye-laws in England and Scotland.

The tendency of building bye-laws to be based on performance instead of specific requirements is a recent one and has been made possible by research during the last quarter-century. Bye-laws so based can be made to satisfy the architect; he requires freedom in design; but the lawyer wants precision for legal enforcement. The two points of view have to be reconciled.

The Building Centre

At the annual luncheon of the Building Centre, held while the last JOURNAL was going to press, the steady progress of this well-established service was evident. The Director, Mr. F. R. Yerbury, O.B.E. [*Hon. A*], reported that attendances had risen from 78,000 in 1952 to 87,000 in 1953 and inquiries from 77,000 to 91,000. Any doubts about the wisdom of the move to the larger premises in Store Street had long ago been dispelled. An impressive list of special activities at the Building Centre during 1953 was presented. These included 8 exhibitions, 55 lectures and meetings, 23 trade and other receptions, 90 party visits and numerous film shows; 19 lectures had been given by members of the staff to R.I.B.A. Allied Societies, schools of architecture and other bodies. The total number of individual and group exhibits is now 478 and represents upwards of 1,500 manufacturers.

Housing Adviser to Iraq

Mr. Anthony M. Chitty, M.A., A.M.T.P.I. [*F*] returned recently from Baghdad where he has been appointed housing adviser to the Iraqi Government. Mr. Chitty will survey the housing needs of the whole country and will put forward to the Minister of Development a housing policy with recommendations in detail for the technique, finance and administration necessary to carry it out.

Housing in India

The vastness of the problem of housing India's millions is well presented in a booklet recently received from its author, Mr. Mohammad Fayazuddin, A.A.Dipl. [*F*]. The booklet, which is entitled *Houses for the Masses*, discusses the essential factors and outlines the measures, including new legislation, necessary to make a contribution to a sound and large-scale provision of housing. The value of using local materials to avoid high transport charges is emphasised; these include stabilised and rammed soil, hollow concrete block, masonry (with mechanisation of quarries) and hollow tile vaulting set in lime mortar. The booklet points out defects in administrative procedure and ways of overcoming them. Photographs of existing schemes and type plans are included.

Exhibition of Designs for Proposed County Secondary School, Falmouth

It is very much regretted that when the designs submitted for this limited competition were exhibited at the Royal Institute those prepared by Messrs. Geoffrey Bazeley and Barbary [*F*/*A*] were not exhibited together, but that one of the sheets of drawings was included with the work of another firm of competitors. The mistake was not discovered until the Exhibition was about to close. The sincere apologies of the Royal Institute have been conveyed to Messrs. Geoffrey Bazeley and Barbary.

R.I.B.A. Diary

FRIDAY 4 JUNE. Last day of Exhibition of Polish Architecture.

SATURDAY 5 JUNE–MONDAY 7 JUNE inclusive, R.I.B.A. offices and library closed for Whitsun holiday.

TUESDAY 15 JUNE. 6 p.m. General Meeting. Announcement of Council Election Results. Discussion on Model Building Bye-laws.

MONDAY 28 JUNE. 6 p.m. Annual General Meeting, Library Group.

Representation of Members and Students in Salaried Employment
Analysis of Replies to Questionnaire

As approved by the Council at their meeting on 2 February 1954, a questionnaire form was sent out to all members and Students resident in the United Kingdom. A list of the questions is printed below. As replies were received, they were scrutinised and checked at the R.I.B.A. and then forwarded to statistical experts for machine sorting.

Table No I shows the number of forms sent out and replies received. Tables II, III, IV and V are analyses of replies to Questions 8, 9 and 10.

Table I

Numbers of Forms sent out and Replies Received

	Forms sent out	Replies passed for sorting	Replies not accepted for sorting	Percentage Response
Fellows	1,746	834	86	52·7
Associates	9,240	5,049	215	57
Licentiates	2,420	965	78	43
Students	4,659	2,530	81	56
Totals	18,065	9,378	460	—
Percentage response ..	—	51·9	2·5	54·4

The Questions

1. Are you mainly self-employed as a principal or partner in private practice?
2. If a Student, R.I.B.A., are you taking a full-time course at a school?
3. Are you employed as a salaried assistant in private practice?
4. Are you in salaried employment in Central Government service?
5. Are you in salaried employment in Local Government service?
6. Are you in salaried employment in a public or private corporation?
7. Are you mainly employed in a teaching appointment?
8. Are you in favour of having a trade union composed wholly or mainly of architects and approved by the R.I.B.A.?
   (NOTE: Refer to paras. 6, 18 and 19 of the summary of the report.)
9. Are you now a member of a protective staff association which represents you and/or negotiates your salary scales and conditions of service?
10. Would you be prepared in principle to join a trade union described in question 8, it being understood that an affirmative answer in no way binds you and that membership would not preclude you from retaining your membership of any organisation referred to in your answer to question 9?

Table II

Replies to Questions 8, 9 and 10 analysed by Classes of Membership

		F	A	L	S	Total
Qu. 8	In favour of Trade Union ..	236 (28·3)	3,392 (67·2)	484 (50·1)	1,846 (73)	5,958 (63·5)
	Opposed to Trade Union ..	598 (71·7)	1,657 (32·8)	481 (49·9)	684 (27)	3,420 (36·5)
Qu. 9	Already a member	143 (17·1)	1,829 (36·3)	351 (36·4)	595 (23·5)	2,918 (31·1)
	Not a member	691 (82·9)	3,220 (63·7)	614 (63·6)	1,935 (76·5)	6,460 (68·9)
Qu. 10	Prepared to join	192 (23·1)	3,355 (66·4)	467 (48·4)	1,885 (74·6)	5,899 (62·9)
	Unwilling to join	642 (76·9)	1,694 (33·6)	498 (51·6)	645 (25·4)	3,479 (37·1)

NOTE: The figures in brackets show percentages of the total replies, class by class.

Table III

Replies to Questions 8, 9 and 10 analysed by Occupations

		Self-Employed	Full-Time Students	In Salaried Employment				Teaching	Other Occupations
				Private Practice	Central Govt.	Local Govt.	Corporation		
Qu. 8	In favour of T.U. ..	428 (23)	400 (69)	1,229 (58)	455 (68)	2,557 (87)	719 (74)	90 (63)	80 (66)
	Opposed to T.U. ..	1,441 (77)	183 (31)	873 (42)	215 (32)	366 (13)	248 (26)	53 (37)	41 (34)
Qu. 9	Already a member ..	23 (1)	7 (1)	21 (1)	443 (66)	2,039 (70)	314 (33)	67 (47)	4 (3)
	Not a member ..	1,846 (99)	576 (99)	2,081 (99)	227 (34)	884 (30)	653 (67)	76 (53)	117 (97)
Qu. 10	Prepared to join ..	326 (17)	417 (71)	1,242 (59)	447 (67)	2,579 (88)	724 (75)	87 (61)	77 (64)
	Unwilling to join ..	1,543 (83)	166 (29)	860 (41)	223 (33)	344 (12)	243 (25)	56 (39)	44 (36)

NOTES: (1) Figures in brackets are percentages of total answering in each occupation.
(2) 'Other Occupations' includes men serving with the Forces, married women with home responsibilities and older members retired from active practice.

Reference to Tables IV and V.

A. In favour of a T.U. Already a member. Willing to join another if set up.
B. In favour of a T.U. Already a member. Not willing to join another if set up.
C. In favour of a T.U. *Not* already a member. Willing to join another if set up.
D. In favour of a T.U. *Not* already a member. *Not* willing to join another if set up.
E. Against a T.U. Already a member. Willing to join another if set up.
F. Against a T.U. Already a member. *Not* willing to join another if set up.
G. Against a T.U. *Not* now a member. Willing to join another if set up.
H. Against a T.U. *Not* now a member. *Not* willing to join another if set up.

Total prepared to join a new organisation if set up. (A + C + E + G) = 5,899 = 62·9% of those replying = 32·6% of total membership.

Table IV

Extended Analysis of Questions 8, 9 and 10 by Classes of Membership

	Fellows	Associates	Licentiates	Students	Total	Percentage of Total Replies
A	82	1,535	248	529	2,394	25·5
B	9	28	6	6	49	0·5
C	103	1,766	206	1,279	3,362	35·9
D	42	73	24	14	153	1·6
E	4	29	9	11	53	0·6
F	48	237	88	49	422	4·5
G	3	35	4	48	90	1·0
H	543	1,356	380	576	2,855	30·4

Table V

Extended Analysis of Questions 8, 9 and 10 by Occupations

	Self-Employed	Full-time Student	In Salaried Employment				Teaching	Other Occupations	Total	Percentage of Total Replies
			Private Practice	Central Govt.	Local Govt.	Corporation				
A	12	6	18	274	1,768	267	45	4	2,394	25·5
B	4	—	2	21	16	2	4	—	49	0·5
C	302	390	1,185	159	770	443	41	72	3,362	35·9
D	110	4	24	1	3	7	—	4	153	1·6
E	—	—	—	13	34	5	1	—	53	0·6
F	7	1	1	135	221	40	17	—	422	4·5
G	12	21	39	1	7	9	—	1	90	1·0
H	1,422	161	833	66	104	194	35	40	2,855	30·4
Totals ..	1,869	583	2,102	670	2,923	967	143	121	9,378	—
Percentage of Total Replies	20	6·2	22·4	7·2	31·2	10·3	1·4	1·3	—	100

The 116th Annual General Meeting of the R.I.B.A., 4 May 1954

The President in the Chair

The President: I have to present the Report of the Council and Committees for the official year 1953–54 and to move that the Report be received. The Chairmen or other representatives of all the Committees whose reports are appended to the Council's Report have been asked to attend this meeting so as to be in a position to answer any questions which may arise in connection with these reports.

The Acting Hon. Secretary, Mr. R. E. Enthoven [*F*], seconded the motion.

Mr. H. Conolly [*F*]: I have pleasure in supporting the motion for the adoption of the Report. I wish to congratulate you, Mr. President, on a successful second year of office, and through you the Honorary Officers, the members of Council, the Chairmen of Committees and their members on what has obviously been a good year, in which some very good work has been done. As I am an official myself, I know how work is really done, and therefore I want to extend my congratulations to our Secretary, Mr. Spragg, Mr. Ellis, Mr. Haynes, Mr. Benton, Miss Bromley, Mr. Bird, Mr. Palmes and all the other members of the R.I.B.A. staff who actually do all the work—and I apologise for any errors or omissions.

I think the choice of this year's recipient of the Royal Gold Medal was an extremely happy one, and that the presentation of this high award by Her Majesty in person to Mr. Stephenson will have done much to strengthen the ties of friendship between our own Institute and the Royal Australian Institute of Architects. I was also glad to read of the exchange of visits and gifts between the Royal Architectural Institute of Canada and ourselves.

I see from the Report that the Joint Committee on Tendering Procedure has reported, and on the whole I think that its report has had a good Press. Some critics may say that it does not contain anything new or revolutionary, but only what we have all known for a long time. My answer to that is that the Ten Commandments are pretty ancient history, but they are still valid as a code of human conduct; the trouble is that not enough people keep

enough of them for a long enough time. I should like to ask whether any steps have been taken to implement what is, after all, the most important recommendation in the Report, namely the setting up of a joint consultative committee with the builders and quantity surveyors.

The Report contains a short note on the vexed question of architectural practice by unqualified people. A Committee has dealt with this subject, and a full report was published in the JOURNAL last December. I hope that it has not stopped there, and I should like to know what action, if any, is being taken. It is a subject on which some of the Allied Societies feel very strongly, although there has been a tendency in some quarters to exaggerate the size of the problem.

I have looked with very great interest at the membership figures, and they seem healthy enough—so healthy that they make me perspire. There are 3 fewer Fellows, 68 fewer Licentiates, 18 fewer Students, but 930 more Associates. The number of Associates has more than doubled since 1948, and the relative proportion between the Associate class and the Fellowship class has altered very considerably. That makes me wonder whether there are a number of Associates who could and should be Fellows who are not availing themselves of that opportunity, and whether the rules for entry to the Fellowship class are too stringent and should be looked at again. A further point which arises, in view of the large numbers of Associates, is whether the representation of the Associate class on the Council is good enough or should be looked at again, and whether perhaps the constitution of the Council itself should be looked at.

From membership figures it is easy to pass to finance, and here I should like to congratulate the Chairman and members of the Finance Committee on a very successful year. There is a nice surplus; even though it is expected to drop next year, it is a nice working balance. I am glad to see that subscriptions have increased to cover the fall which we all expected from examination fees. The reduction in the cost of the JOURNAL, the Kalendar and the Library Bulletin is very welcome. From my own knowledge of the Finance Committee a year or two ago, I was glad to see that cash on deposit this year is £364, against £158 a year ago, and I was also glad to see the growing amount of money in the Premises Fund, especially at a time when we have to deal with No. 68 Portland Place.

Turning to the Committee reports, I shall be most interested to hear what the Competitions Committee have to say about the possibility of speeding up procedure. There is at present a very great deal of work which is being given out directly by building owners of all kinds in cases where competitions might be held if they could be dealt with more quickly. Today, with large programmes and fixed dates, it is not easy to hold a competition, and that is hard on young men of genius as against the established practitioner. In the report of the Competitions Committee we note the reference to the Strasbourg experiment and its possibilities for the future.

I pass the Hospitals Committee with a friendly nod and come to the Practice Committee. There I am pleased to see that something is at last being attempted on the question of fees for State-aided housing schemes. Many practising architects do this work and have not found it sufficiently remunerative. I hope that the next scale will be better.

I should like to acknowledge the work of the Professional Text and Reference Books Committee. This midwifery of textbooks must be a very slow and unrewarding job.

That brings me to the Public Relations Committee. I look forward very much to the second exhibition of 'The Architect and You', and I should like to say how much I and many other members enjoyed the exhibition of Venetian villas. I was also glad to see the report of the distribution of the two pamphlets, *The Architect and His Work* and *Before you Build*. I should like to ask whether there has been any tangible result of which the members can be told, other than a general quickening of public interest. That interest is not nearly quick enough for a good many of the younger architects.

The Salaried and Official Architects' Committee has had, in my opinion, a very good year, not due to the fact that I joined it at the beginning of the session but because of the very long and able report which that Committee has submitted to the Council on the vexed and debatable question of trade unionism. It is in a way a pity that every salaried member, and indeed every member, cannot see the full report. That is not possible, I am afraid, but a very good précis has been sent out. The whole question is *sub judice*. All that has happened is that this inquiry has gone out, and the Council has to get the returns in and then discuss the whole question. The fact that out of the blue, as it were, another body has arisen has nothing to do with us at all, and we have to wait for the Council. I was glad that a directive went out so quickly from the President to R.I.B.A. members.

To come back to the report of the Salaried and Official Architects Committee, I think that if members could see it they would find in it an answer to those critics who say 'What is the R.I.B.A. doing? It has never done anything for me.' This Committee has dealt with many other problems as well.

I am not so happy about the School Design and Construction Committee. It was stopped in the constructive work which it wanted to do by the Executive's veto, and it seems to me that all that it can do now is to sit around and wait for something to turn up. If that is so there is possibly a case for disbanding the Committee, as was done before the war with the Aerodromes Committee.

I was very glad to see that one of the problems which has occupied the Science Committee during the last year is how to get the results of their various researches into thick heads such as mine. They do not put it quite like that; they say 'Much of the work of the committee is concerned with the application of the results of research to the practice of architecture', but it comes to the same thing. I should like to ask when they are going to persuade the Building Research Station to write Vol. 2 of *The Principles of Modern Building*.

The Town and Country Planning Committee seems to have done a great deal of work, and I have one point on it which I shall raise later.

Last, but by no means least, there is the Board of Architectural Education, probably the most important of the profession's committees. Here, I think, one is bound to ask when the report of Mr. McMorran's Committee is going to be published and, when it is published, will it be possible for us to know whether, in fact, that is the report which the Committee wrote, or whether it has gone through the mill and been altered out of all recognition.

I know that the subject of architectural education is a very vexed one, and a very important one. I can well imagine that revolutionary changes in education are going to take a long time, but I would point out that there are 5,000 registered students, and the longer the question is delayed the worse it may be for the future of these young people.

That is all that I have to say on what is in the Report, but it is what is not in the Report that worries me, because there are some very big problems today, problems which worry a great many people, which are not dealt with. There is, first of all, the question of the rebuilding of the City of London. We all know that there has been some correspondence about this, but I should like to know whether the R.I.B.A. has thought about the matter from the point of view of seeing whether it is possible either to introduce architectural control or, better still, to encourage the architects to do good architecture. Have there been any talks with Ministerial departments or the City Fathers?

Then there is the almost equally vexed question of the New Towns, and whether the Institute thinks that they are architecturally successful or failures. Has the Town and Country Planning and Housing Committee considered that? There is the further question of what we can do, if anything, about the speculative builder's work, which is going to be encouraged still more by Mr. Macmillan's announcement today. Is there any chance of helping the little man?

Mr. Thomas Mitchell [*A*]: I should like to reinforce the plea of Mr. Conolly with regard to the Joint Education Committee. I am not alone in having been very much concerned over a period of years about the subject of architectural education. Last year the Board of Architectural Education had rather an easy passage, but two years ago there was evidence that this problem was very much in the minds of most of the members present at the meeting. I feel that this problem has been played with; we are

dealing with it in the worst Government department manner. A further year has passed and we have heard nothing more. We have a flood of post-war buildings, and we do not know whether we are training our young men in a proper way to meet it.

Review of Tendering Procedure

The President: Perhaps we can start with the Joint Committee on Tendering Procedure. Its sequel is already in being; its membership has been appointed, and its proceedings will start as soon as is feasible. I imagine that we shall not get very much done by the end of this session, in view of what is happening, but action was taken almost immediately after the issue of the report. I think that all those concerned will pay considerable attention to the points which have been made in the Press on the kind of subjects which the Committee might consider. I cannot say more than that, because it is only just in being.

Representation of Members and Students in Salaried Employment

Mr. Thurston Williams [*A*]**:** I should like to congratulate the Council, the secretariat and the Salaried and Official Architects Committee on the referendum and on seeking the opinion of members. This is a step forward on the part of the R.I.B.A. I have always felt that the Institute failed to take its members into its confidence sufficiently. Can we be informed this evening of the result of the referendum? This is a most important subject, and I hope that, whatever the result of the referendum, and whatever the result of the Council's deliberations, the Council will go farther than it has done so far and, before taking any final decision, will call a meeting of members or in some way bring us each individually into touch with it. Many of us are directly affected, and many of us are already in one of the organisations mentioned in the covering letter from the Secretary which went out with the referendum. In that connection, I also hope that before the Institute takes any irrevocable decision it will place before the members the views of the organisations mentioned.

As a member of one of these organisations, I should like the Institute to save us some money—to put it at its lowest level—and to think in terms of making use of the existing organisations. When it comes to make its final decision, I hope that it will not decide to set up yet another organisation to represent yet another section of architects.

Mr. Henry T. Swain [*A*]**:** I should like to associate myself with the last speaker and ask for information on the result of the questionnaire. I think that the Annual General Meeting provides a very good occasion on which to outline the result, because it would encourage people to come to the Annual General Meeting if such announcements were made at it. I should also like to associate myself with the congratulations offered by the last speaker to the Council and to the Salaried and Official Architects Committee. They have moved a great deal faster than I expected, and when I received the ballot paper—or 'straw vote' paper, because it was simply asking for the advice of members, and not a vote—I was very much surprised indeed.

The President: I am sure that the Council will appreciate the agreeable side of the two comments which have been made. I wish that it was possible to give more information, but the Council only met this afternoon to consider this matter, and it is not possible to forecast the Council's view. The points which have been raised this evening in the matter of considering the bodies which might be of assistance to our members have been very much in the minds of the Council, and appropriate action will be taken. We are conscious of the great interest taken in the questionnaire, and although normally we should publish the result in our JOURNAL the next issue is some weeks away, and so we are putting out to the technical Press a brief statement of the situation, which will comprise the original questionnaire and the result of the voting (if you wish to call it so) from members. I shall ask the Secretary to read what we shall give to the Press. He has the figures which will be published.

The Secretary: I do not think that it will be possible to give the figures briefly, but the general picture is that something like 54 per cent replied, something over 9,000 members and students. Of those who replied, 63 per cent expressed themselves in favour of a trade union and the remainder against. Those figures are broken down in the report which we have obtained from Holleriths, who punch the holes in the cards, and the information will all be given to the technical Press and published in the May issue of the JOURNAL, with a short note from the Council to the effect that the Council have received from the statisticians an analysis of the replies to the questionnaire and are now reviewing all aspects of the situation and are considering what steps it might be proper to take.

The President: You will see that the replies give a substantial majority in favour of the trade union idea, but I am afraid that we cannot go further in indicating the steps which the Council may take. It is fair to say that steps are being and will be taken. The voting indicates clearly that it is the duty of the Council to take steps, and they will be taken. There is no more information to be given at the moment, because we have only just received the analysis of the replies to the questionnaire.

Private Architectural Practice by Unqualified Persons

The President: Mr. Conolly referred to practice by unqualified persons.

Mr. R. E. Enthoven [*F*]**:** There is not much that I can add to the report published in the JOURNAL. We have found it difficult to do anything at high level to insist that only architects should be employed on architectural work, but a great deal can be done in different ways, particularly in the provinces. We hope that the Allied Societies are doing what they can, and we shall be having a meeting of the public relations officers during the summer. Since the report was published we have not only met the representatives of the building societies but, on their advice, met the National Federation of Registered House Builders, and we feel that something can be done there. We are exploring every possible way of having more architects employed in that field.

Board of Architectural Education

The President: I will pass over, unless someone wishes to comment on them, a number of items which are merely matters of report, and come to the Board of Architectural Education, on which questions have been raised by Mr. Conolly and Mr. Mitchell. Are there any other comments?

Mr. F. H. Heaven, A.R.I.C.S. [*A*]: On page 3 of the Report we see the intake of Associates has been roughly 1,000 a year for the past few years, but the examination results on page 6 show that only 477 passed last year. Where are the missing 500? I presume that they come from the recognised schools. We are also told that the percentage of passes is about 32. What is the percentage of passes for the recognised schools? I imagine that it must be about 90. I find from the Kalendar that there are 33 recognised schools, and dividing that number into the missing candidates gives us about 15 students a year each, which I should imagine is a very small number to carry on a school of architecture.

Mr. W. McCrea [*F*]**:** I should like to associate myself with the question raised by Mr. Conolly and Mr. Mitchell with regard to the Joint Education Committee. This is, we feel, a matter of great urgency, and this report has been held over for a long time before being given out to the members. Can it be expedited?

Mr. Thurston Williams [*A*]**:** I would add my voice to that plea. I raised this issue last year and was under the impression, from the reply given by the Chairman, that it would be coming out at any moment. It seems that the same answer is being given this evening. The sum total of what has been made public about this Committee seems to be that they have got the Council to agree on the principle that candidates for the Associateship should be required to pass an examination in a uniform list of subjects. That is very important.

I also asked that when the Report was in a more or less finalised stage the membership should have an opportunity to discuss it. That was turned down, but as a matter of principle I raise it again, in the hope of getting some support for the idea.

Mr. Anthony M. Chitty, A.M.T.P.I. [*F*], Chairman, Board of Architectural Edu-

cation: Three questions are raised: (i) progress, (ii) the publication of the Joint Education Committee Report, and (iii) examination percentages.

With regard to progress, the question is an extremely interesting and complicated one, as is shown by what has been said, and has exercised the whole profession over the last two years. It is obviously of the greatest importance. I have really nothing to add to what is published in the Annual Report. The Committee has held 12 meetings since the interim report was published, and in recent months it has met every two weeks and spent the better part of a day on this subject. A great deal of collection of information has gone on between meetings. A progress report will be submitted to the Board at their next meeting, which will take place this month. I, like the speakers, hope that we shall hear something worth while before long, and I hope this year, but I cannot promise that, and I am sure that the Committee would not promise it.

I would remind in particular the last speaker, who asked for quick results, that there is no magic in this. We have an educational system which has endured for close on a hundred years, with the schools growing up over the last fifty. It may well be that some quite serious and drastic revision of methods of education is due now, after the second world war, and I think that everyone in the profession, and certainly not least the Board and the heads of the schools, is conscious of that.

Mr. Mitchell referred to this matter as being dealt with in accordance with the worst methods of the Civil Service. That is a hard remark. I was a civil servant for five years, and the most important thing that I learnt during those five years was that the delay on the part of civil servants in replying to a letter is due to the fact that they are trying to find the right answer, and not a quick answer. There is nothing further at this moment to report, but the Board will have something from their own Committee on 31 May.

On the second point, the publication of the Architectural Education Joint Committee's report, I can only say what I said last year in reply to the same question, that this is a Committee of the Council, that they will report to the Council, and that the Council will do what they see fit with the report. That is the normal constitutional procedure.

The third question dealt with examination results, and, as the speaker suggested, the discrepancy between the two figures is accounted for by the results in the recognised schools. The percentage of passes in the intermediate examination was 66 and in the final examination 75. Those are in each case somewhat lower than the corresponding percentages of the year before.

The Library

Mr. Gilbert H. Jenkins [*F*]: The Library has done magnificently in acquiring a further 2,000 books this year. I note in the audited accounts that the auditors are quite unable to include a value for the Library, the books and pictures and so on, in the assets of the Institute. It would be interesting, however, if the Library Committee could publish the total number of books and of pamphlets, prints and drawings that we possess. The Library is apparently very much cramped for room owing to the accessions. I notice in the accounts that there is a sum of £82,000 allocated to new premises. Does that mean that we have £82,000 in hand for the extension of the Institute, including the Library?

Mr. Grahame B. Tubbs [*F*], Chairman of the Library Committee: Two sub-committees of the Library Committee, the Accessions (Books) Sub-Committee and the Drawings and Prints Sub-Committee, have been studying the amount of space needed over the next 30 years. Their findings are being incorporated in a report to the Council.

Mr. Thomas E. Scott, C.B.E. [*F*], Hon. Treasurer: I can explain the position with regard to the rebuilding fund. We have the magnificent sum of just over £80,000 at our disposal. The Finance and House Committee have already examined sketch plans which were prepared by Mr. Grey Wornum for the rebuilding of No. 68 next door, which we are required to rebuild by 1960. Steps will be taken in the immediate future with the approval of the Council—which we have not had yet, but which no doubt we shall get—to instruct Mr. Grey Wornum to proceed with the necessary plans and so on for the rebuilding of No. 68, the cost of which, we are fairly confident, we can cover out of the sum which we have accumulated, and without the need to borrow money. The provisional plans which have been made for this will provide for an appreciable extension of accommodation for the Library. We shall certainly not be able to give the Library all that it asks for, but so far as I can judge no department in the Institute is likely to get all it asks for in No. 68. We hope that in the not distant future a very much more positive report can be made.

Mr. Gilbert H. Jenkins: There is another small point which I wish to make in connection with the Library. I see that it is proposed as an experiment to file drawings in upright portfolios. About 40 years ago we bought 100 such portfolios, and it was found that in the course of years the drawings, being of different sizes, were apt to curl and become dog-eared in folios stood upright. This therefore seems a very doubtful experiment for the Library to undertake.

The President: Thank you. We shall bring that to the notice of the Library Committee.

Competitions Committee

The President: There was a comment by Mr. Conolly regarding speeding up the procedure for competitions.

Mr. Michael Farey [*A*], Hon. Secretary, the Competitions Committee: We are discussing at present whether something could be done to speed up the preliminary announcement of a competition and shortening the time in which to apply for conditions. Then there are the questions and answers, one of the main causes of delay in competitions. Some members were rather in favour of cutting out the questions altogether, but that imposes a very big burden on the assessor, because nearly always there are some points which the assessor cannot completely cover. It was agreed, therefore, that questions and answers must be kept in as a matter of general policy, but that the time taken for these should be cut down considerably.

We are considering what can be done to speed up competitions generally and also the desirability of encouraging more two-stage competitions. A two-stage competition means that sketch designs are asked for to a small scale to enable the assessor or assessors to decide on six, ten, or whatever the number may be, depending on the size of the competition, of the schemes to be developed to a further stage, and a premium given to each.

Then there is the question of the Strasbourg experiment. The object of that was to speed up the building of a very large block of flats for about 800 families, and it was a great success. The competition was for a complete tender. Reputable firms were selected to put in schemes, and there was collaboration between the architect, the quantity surveyor and the contractor. As this proved a success in Strasbourg, it was suggested that it should be done over here. It involves some big public body sponsoring the scheme. That is being discussed by the Ministry, and I understand that no actual scheme has been formulated yet.

Mr. K. C. Evans [*A*]: I wonder whether it is possible for the Competitions Committee to encourage an idea which I believe many architects have had in mind. If a public body are running a competition for one building, could they be encouraged to use the result of that competition to compile a panel of architects who could be used for future work? This would avoid a great deal of waste of time on the part of architects who enter competitions and never get anything from it.

The President: No doubt the Competitions Committee will take note of that suggestion. It is obviously bound up with the type of work. If it were repetitive work—schools, hospitals or other buildings of which quite a number have to be done in the course of a few years—such a panel might be useful, but with the single odd job it might not be such a good guide. It is an interesting suggestion.

Practice Committee

Mr. Gilbert H. Jenkins [*F*]: I have a bone to pick with the Practice Committee. As an ancient mariner in the squally seas of private practice, I fail to understand why

the Practice Committee should provide in the Scale of Professional Charges that private practitioners are expected to provide free of cost to a client record plans of the work as carried out. The client is entitled to have a set of the working drawings, but according to the wording adopted the architect is expected to be responsible for accurate drawings setting out all the main lines of drainage and other essential services.

In the past my partner and I made detailed plans covering not only the drainage but the hot and cold water services, heating services, electricity, soil and waste pipes, ventilation pipes and so on. But we found that, despite the clerk of the works and the fact that plans were given them showing definitely where the pipes were to go, if the plumbers got on the job first they put them in the most convenient place for themselves. The consequence was that the plans were never valid for the work as finally completed.

We provide free of charge—I do not know why, because it used not to be part of an architect's services—these plans. The plans are not records, unless we spend a great deal of money to make them so. Because of this honorary service we render ourselves liable if somebody drives a tool into an electric wire and drops dead, and the amount of compensation awarded in these cases is going up and up every year. We do not want as private practitioners to incur this liability, and by a very slight alteration in the Scale of Professional Charges it could be avoided. If clients want plans of this sort they ought to pay for them.

Mr. Charles Woodward [*A*], Hon Secretary, Practice Committee: On the first point, it is stated that the architect 'shall if requested' do so, which seems to leave the matter entirely in the client's hands. If the client does not make the request, presumably the architect need not take the action, and the point does not then arise. The general feeling of the Practice Committee, however, is that clients at least ought to know, and be told in some way, where the drains are in their premises, if there are any drains. That should normally be a free service. So far as electrical work is concerned, one would not expect the drawings to show every conduit in the building, but the main lines should be shown.

The Practice Committee have often had this point before them, and they have always taken the view that a client is entitled to know generally where the services are, so that if anything happens it can be dealt with.

Mr. George Fairweather [*F*]: I have always found some difficulty in preparing a specification that would accompany a bill of quantities, and it has been my practice in the past to ask the quantity surveyor to prepare a specification where a bill of quantities is provided in the scheme. The question always arises of who is to pay for the specification. I asked a quantity surveyor recently whether it was customary for the architect to prepare this specification, and he said he did not think that many architects did, and that he usually did it. Sometimes he charged the client for it and sometimes he charged the architect; at other times he gave it to the architect at cost, and sometimes he gave it to the architect free.

I think the Practice Committee might regard it as worth while to look into this. There is bound to be a very close link between the bill of quantities and the specification, and the quantity surveyor should be responsible for the preparation of the specification where bills are prepared, and that should be stated in the Scale.

Mr. Charles Woodward: We shall be prepared to consider it.

Mr. J. V. Henry [*A*]: I want to put the opposite point of view with regard to the specification. Surely it is wiser for the architect to prepare the specification as a guide for the quantity surveyor, so that the quantity surveyor is able to take off the types of material that the architect has in mind? I suggest that in that case there will be fewer variations and extras at the end of the job. I feel that the specification is as important as the drawings in any scheme, and consequently I suggest that the specification should be firmly on the architect's plate.

The President: It was the drafting of the formal document which was in question, I think, not the subject-matter of it. Mr. Woodward has heard what has been said and will no doubt include it in his general consideration.

Public Relations Committee

The President: Under the heading of the Public Relations Committee, Mr. Conolly asked whether there had been any result from the two pamphlets which have been issued.

Mr. H. T. Swain [*A*]: I should like to smuggle in the Annual Conference under the heading of this Committee, because I think that it is part of the public relations of this profession, and I commend it to the attention of the Committee. I think that the work of the Public Relations Committee has been excellent this year, and the national Press already provides evidence of a dividend on its work, because there is far more discussion about architecture than there has been hitherto. I feel, however, that there is a slight weakness in our Annual Conference, because it does not seem to catch the eye of the general public in the way that I think it should. Speaking as a rather junior member of the profession, I would venture to emphasise that the Annual Conference is far too much a social occasion and not sufficiently an occasion for putting the point of view of the profession to the general public and discussing publicly and before the correspondents of various papers the very real building problems facing this country.

The President: There is a Standing Committee on the Conference which has been sitting recently, and which will continue to sit to discuss questions of this kind.

Mr. E. D. Jefferiss Mathews, O.B.E., A.R.I.C.S. [*F*], Chairman, Public Relations Committee: With regard to the booklets, it is early days for any tangible result, by which I mean being able to point to a client who will say, 'But for this I should have gone direct to the builder', but there have been indirect results, particularly from broadcasting. After the broadcasting and television programmes, of which there have been a number, there have been marked increases in applications from completely outside sources for this pamphlet. After one television programme alone there were 600 letters next morning asking for the pamphlet. That seems to indicate that, on the law of averages, it must be having results. A wide knowledge of the existence of this pamphlet is also shown in Press cuttings from the provinces, so that in one way or another it has come to the notice of the public.

The question of the Annual Conference has been and is constantly before the Public Relations Committee, and with this new Committee which has now been set up I am sure that during the coming session it will be further considered.

Salaried and Official Architects Committee

Mr. Thurston Williams [*A*]: On the last paragraph, I should like to ask what subjects the Committee have under consideration relating to blacklisting? I should like to see this matter connected with the employment of non-architects in local authority offices in charge of architects. Another point is that by Act of Parliament no one can call himself an architect if he is not, but unfortunately our employers are not bound to call us architects even though we are, and I should like the Committee to take this up.

Equal pay is a national question, and it is a principle by which the Institute stands. Has the Institute ever made representations to the Chancellor at Budget time along with the other organisations which do so, and has it given consideration to putting a little pressure on its own members?

Mr. Gwyn H. Morris [*L*]: I am surprised that the last question should be asked, because everybody knows that in the little blue book of the National Joint Council there is no differentiation between men and women, and an architect who has qualified is automatically in Grade 5, whether a man or a woman.

Mr. Thurston Williams: That is true of local authorities, but not of the Civil Service or of certain private offices.

Mr. J. T. Castle, A.M.T.P.I. [*A*]: I am afraid that is not correct for local authorities,

but only to the extent that there is a Grade 5 post on the establishment vacant. There is nothing to prevent a local authority paying much less than Grade 5 for qualified architects.

Mr. Leonard C. Howitt, M.T.P.I. [*F*], Chairman, Salaried and Official Architects Committee: The only blacklisting the Committee have considered—and they have not regarded it as practicable to do it—has been where the conditions of service are unsatisfactory, usually where the salary offered is inadequate for the responsibilities of the job. We feel that it is impossible to blacklist a job because the employer is not an architect, because if we did that, and prevented a qualified architect from taking the job, his place would be filled by an unqualified person, and that would not help the cause of architecture.

Equal pay is really a question of the Civil Service, because in local government service there is no distinction between men and women. The Institute's view in support of equal pay was expressed some time ago to the Commission which was considering the subject. I can confirm what Mr. Castle says about A.P.T.5. The qualification for that is registration, but whether an architect gets the A.P.T.5 grade depends on whether there is a vacancy or not. There is a possibility that we may substitute the final examination of the R.I.B.A. prior to one year's professional practice for the requirement of registration, to bring us in line with the grading given to engineering assistants on a similar basis.

Mr. Thurston Williams: Have the Committee considered taking up the question of members of this Institute who are described as something other than architects?

Mr. Leonard Howitt: Yes. There is a Council recommendation on that, and we frequently make representations to employing authorities. We cannot make them do anything, but we do approach them and we hope that eventually they will take our advice.

Mr. Thurston Williams: If an instance of discrimination against a woman is brought to the notice of the Committee, are they prepared to take any action?

Mr. Leonard Howitt: The Committee are prepared to consider action on any complaint which is put to them.

The President: I think the sense of the questioner's point is that we do not care for discrimination against either sex if they are qualified and rank for certain categories, and action would be taken if attention were called to a case.

Science Committee

Mr. George Fairweather [*F*], Chairman, Science Committee: A question was asked about Vol. 2 of *The Principles of Modern Building*. The Science Committee have already had this matter under consideration, particularly in the light of their study of the gap between science and its application. I have heard unofficially that Vol. 2 is in draft and is being considered by the Building Research Station at the moment. The Science Committee are pressing the B.R.S. to hasten publication.

Town and Country Planning and Housing Committee

The President: I might say something about the City. I have seen Sir David Eccles several times, and also the Chairman of the Town Planning Improvements Committee of the City, and I have met the Lord Mayor. The statement by Sir David which started the ball rolling was not unconnected with discussions which occurred here. I think that there has been a genuine attempt by the Minister to do something, and that the City authorities have reacted quite well. It is unfortunately a little late to do very much, but the grouping of buildings and the making of models to ensure that sections of the City are designed as groups have gone forward.

Professor Sir William Holford, M.T.P.I. [*F*]: There are two procedures now which are comparatively new. One is that there is a regular unofficial meeting between all the authorities at which alternative models are prepared for different areas, with the idea of giving individual architects an opportunity to look at the 'envelopes' suggested, the street line, the grouping and so on, so that they will be more likely to put in schemes which will receive fairly quick approval by the two authorities concerned, the L.C.C. and the City Corporation.

The other is that we have been asked to examine a number of the proposals which originated in the old plan of 1947 and relate them to very changed economic conditions. We were not in the early years after the war prepared for the slowness and unwillingness of owners to rebuild. The trouble has been, as everyone knows, that very often people who have not much interest in the quality of the building have rushed forward and obtained licences, while those who take time to think about what they want and commission good architects have been slow. The result is that although I have jotted down the names of 40 firms the principals of which at least are members of this Institute and all work in the City, there are no doubt other names which all of us would wish to be represented on that list but are not. I do not know what the Institute can do about that. The procedure is being made more flexible.

The President: Would Mr. Peter Shepheard care to say something about the New Towns?

Mr. Peter Shepheard [*A*], Chairman, Town and Country Planning and Housing Committee: The Committee have not specifically considered the New Towns as such, and it is a very reasonable suggestion that they should do so, though what they can do about it is not clear to me at the moment. The New Towns suffer from problems related to the sort of density at which they are expected to be built, and their layout, and the sort of dwellings that the people who live in them are considered by the New Town Corporations to want. The Corporations are autonomous bodies, and were given that autonomy in order that there should be as many different kinds of New Towns as possible. We shall certainly consider that, because it is a good subject for the Committee.

With regard to speculative building, which was also mentioned, we are considering the implications of a very wide scale of architectural control, with the object of seeing how it works. One of the main things which we wish to consider is how it works in relation to the recrudescence of speculative building. I am not optimistic that architectural control can do more than turn something hideous into something dull, but it may be that that is what we should aim at so far as the speculative builder is concerned. There is only one way of improving speculative building, and that is to see that more architects do it. That is Institute policy, though perhaps not quite under my Committee.

Mr. R. S. H. King, A.M.T.P.I. [*A*]: In the report there is no reference to the fact that a new Town and Country Planning Bill has been prepared and is before Parliament. It is a curious measure in some respects and has been referred to as akin to the art of unscrambling an omelette. Have the Committee tried to investigate this Bill, and what are their conclusions?

Mr. Peter Shepheard: We have had this Bill on the table and have tried to understand it. We have been told by those well qualified to know what they are talking about that there are people well versed in the law who do not understand it themselves, and there are many members of local authorities who are not certain what it means. My Committee have decided not to make any official comments on it or to recommend the Council to do so at the moment simply because the Bill is entirely concerned with the financial provisions of the Act, and, on the statement of the Minister himself, it is intended not to undo the Act but to make it work better. We can all have our own opinions about that, and there are some financial provisions which look, to a planner of my generation, retrograde, but we cannot really comment on it until we see how it is worked. Whether it is going to unscramble the omelette depends on how the Treasury interpret certain parts of it and how the Minister uses his powers to revise planning decisions. What happens depends on how the Minister and the Treasury use their powers. We ought to watch the situation and make a pronouncement a little later on.

Mr. A. A. Macfarlane [*A*]: Does it come within the province of the Committee to make some statement to show why it is that multi-storey dwellings cost so much

more than houses in this country? There must be some value of land at which it is economic to build multi-storey dwellings.

Mr. Peter Shepheard: We did try to find out, at the suggestion of one of the members of the Committee who had travelled a good deal abroad, why multi-storey dwellings are more expensive than houses in England, whereas abroad they are cheaper. Frankly, we have found no evidence to suggest why that is so, but it is very largely connected, I think, with the attitude of the builder. To him a house is a house, and everybody knows how to do it even without an architect, but a multi-storey dwelling is a building, something for which you tender, and everything is quite different. That is all that came out of our discussions, and it is very unsatisfactory. I am sure that there must be some complicated reasons for this undoubted fact. The new Swiss book on housing shows that even 10-storey and 15-storey flats are cheaper than 2-storey houses and 3-storey flats in the same town and by similar contractors.

Finances of the Royal Institute

Lieut.-Colonel L. K. Watson, M.B.E., T.D. *[F]*: The R.I.B.A. Kalendar is sent through the post rolled up, but is too large to be sent with dignity in that form and it warps when you undo it. That also applies to the JOURNAL, but this flattens itself out.

Mr. Kenneth J. Campbell *[A]*: Why does the prospect of coming to a meeting here fill me with dull depression? I think that I have at last realised why it is. The lighting in this hall is intended as a cure for insomnia rather than a stimulus to debate. Architect speakers are often inaudible, but when they are invisible as well it is trying! It is difficult to see where the speaker is unless he is bald; the lighting throws a mellow light on bald heads but hides the features entirely. I am certain that the lighting has an effect on the way people speak. We want some kind of sparkle in the lighting, quite apart from the intensity. Also, it is carrying modesty too far for the platform to be obscured not only by the bad light but because they are silhouetted against a white curtain.

The President: I think that Mr. Campbell has something there!

Lieut.-Colonel L. K. Watson: I agree with Mr. Campbell and have thought the same every time I have been here. I notice with joy that the white screen is beginning to need replacement, and the Finance and House Committee might also pay attention to the microphones, which do not add to the beauty of the platform.

The President: We have had two very constructive suggestions.

Mr. Gilbert H. Jenkins *[F]*: A small point on the accounts is that there is nothing in the Trust Funds about the Soane Medallion, which used to be the plum of all the students' competitions.

Mr. Thomas E. Scott, C.B.E. *[F]*: The answer is the prize money for the Soane Medallion is met out of ordinary funds and there is no Trust Fund.

The Secretary: In reply to Colonel Watson, we have tried what he suggests and get complaints whichever way it is done. I am surprised that the Kalendar does not come out flat after a time, because the one sent to my own home does so. Unless heavy cardboard cases are used, more damage is done by sending it flat; that is our experience and the advice of our printers. If we use thick cardboard boxes the accounts will not show such a healthy position as they do now.

The Report was adopted.

The President: I should like to move that a very hearty vote of thanks be accorded to Mr. Robert O. Foster *[F]* and Mr. E. D. Lyons *[A]* for their services as Hon. Auditors for the past year.

The resolution was carried.

The President: Mr. Robert O. Foster and Mr. E. D. Lyons are fortunately both eligible and willing to be re-nominated as Hon. Auditors for the current year, and if it is your pleasure I beg to move that they be so re-nominated.

The resolution was carried.

The President: We have with us tonight Mr. Peter Thornton, Vice-President of the Royal Architectural Institute of Canada. It is very nice that he has attended this meeting, though he must have had a shock to see all the linen hanging on the line, dirty and otherwise. We should like to welcome him here.

Mr. Peter Thornton *[A]*: It is very nice of you to welcome me here, and it is a pleasure for me to be here. I can assure you that I have enjoyed this evening; it reminds me so much of our own meetings!

It is a pleasure to be here for many reasons. First and foremost, to see again familiar faces and, I hope, to renew some acquaintances. It is also an occasion that I am not likely to forget, because it is the first opportunity which I have had to attend a meeting of the R.I.B.A. as a member of the R.I.B.A. Since my election in the 1930s, I have, with the exception of the war years, been living and practising on Canada's west coast. It is also a pleasure to be welcomed here as a guest, representing, unofficially, the Council of the Royal Architectural Institute of Canada, from whom I bring messages of fraternal greeting which I am sure they would wish me to convey had they known I was to be here tonight.

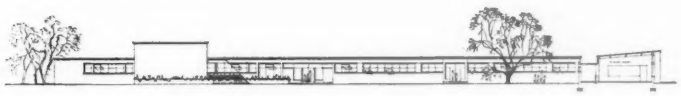
We in Canada guard and cherish the cordial relationship which exists between our two Royal Institutes and which was cemented so firmly by your Past-President, Mr. Graham Henderson, and the most amiable Mr. Spragg.

There is one question which I may be able to answer, if not necessarily for those who are here, at any rate for some members who are not here. It concerns the employment of architects in Canada. It would appear that we architects in Canada value our usefulness to the community more highly than the community values us. One of our Institute's main endeavours is to promote the cause of our profession across our land. I mention this because the growth of our profession in Canada is rather slow, and one of Britain's chief exports today is, I believe, a great number of young and enthusiastic architects. We are inundated with letters seeking information and with bodies seeking employment.

That so many should arrive on our west coast having filtered across the vast breadth of Canada without finding employment is evidence that the rate of absorption is not sufficiently high to accommodate the flow. It is distressing to us who are already in practice that this is so, but it is at present impossible for us to offer the necessary practical experience both to our own graduates from our five schools as well as to the flood of bodies from Britain. The glowing reports which you may have read about the industrial expansion and population growth of Canada are true, but the growth of the architectural fraternity follows rather than leads in this period of expansion.

Lest it be thought that I am trying to discourage emigration—and I would ask you to note that I am speaking as a private individual—I hasten to add that of those who go to Canada from this country and are absorbed, the great majority do exceedingly well for themselves and are very well liked and are very well trained. Secondly, so long as our economy remains as it is or suffers no substantial set-back, opportunities for employment should still occur, if at a somewhat slower rate than of recent years.

The President: I should like from the Chair to thank you all for the interest which you have shown in attending this meeting. It is of the utmost encouragement to the Council that you should come here in such numbers and make comments and criticisms which require a great deal of thought and work. Far from being resented, this is very greatly appreciated. I should like to take this opportunity, the last which I shall have, of thanking you for your great interest in the work of the Council.



Nominations for the 1954 Council

In accordance with a decision of the Council candidates nominated for election have been asked to give the following brief particulars for the information of members:
(A) Address; (B) Date of birth; (C) Degrees, affixes, prizes, publications and distinctions; (D) Type of experience, e.g. official or private practice; (E) Type of practice, e.g. churches, schools, housing, industrial, etc.; (F) Previous service on R.I.B.A. Council and Committees, the Architectural Association or an Allied Society; (G) Military or any other form of national service.
The following candidates have been nominated:

AS MEMBERS OF COUNCIL

Anderson: Alexander Frederick Berenbruck. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 13 Manchester Square, W.1; (B) 22 July 1888; (C) S.A.D.G., F.R.I.B.A., Medallist Ecole des Beaux Arts, Paris; London Architecture Bronze Medallist 1937 with Robert Atkinson; (D) Private Practice, in Partnership with Robert Atkinson; (E) Varied; (F) Council 1942–44; Public Relations Committee 1948–52; Chairman, Films Sub-Committee 1947–52; President, Architectural Association, 1942–44; (G) 1914–19: 7th City of London Regiment and 8th Royal Scots; 1940–45: Home Guard.

Anderson: Alexander Robert Fordyce. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 9 Stone Buildings, Lincoln's Inn, W.C.2; (B) 15 May 1906; (C) F.R.I.B.A.; (D) Private Practice; (E) General; (F) R.I.B.A. Council 1951–53; Chairman, Practice Committee; Board of Architectural Education; Joint Committee of London Architects and Builders; Joint Committee on Tendering Procedure; Past President, Architectural Association; (G) Ministry of Aircraft Production.

Bradbury: Dr. Ronald. Nominated by the R.I.B.A. Council under Bye-law 34. (A) City Architect and Director of Housing, Blackburn Chambers, Dale Street, Liverpool; (B) 5 January 1908; (C) B.A. (Arch.) (Manchester), M.Sc., Ph.D. (Columbia, N.Y.), F.R.I.B.A., A.M.T.P.I.; Rome Finalist 1931, Commonwealth Fellow 1931–34, Athens Bursar 1939, Joint Recipient Festival Award 1951, Numerous articles in Technical Press; (D) General Private Practice N.E. England prior to war; Director of Housing, Glasgow 1945–48; appointed City Architect and Director of Housing, Liverpool 1948; (E) Extensive Municipal Housing Schemes, Schools, Factories and other Industrial Buildings, Art Galleries, Museums and Hospital work; (F) Previous Council Member of the Northern Architectural Association, and the Glasgow Institute of Architects; at present Council Member, Liverpool Architectural Society; (G) Ministry of Labour and National Service, Northern Region (Labour Supply); subsequently in London (Post-war Training Scheme for the Building and Civil Engineering Industry).

Brett: Hon. Lionel Gordon Baliol. Nominated by the R.I.B.A. Council under Bye-law 34. (A) Watlington Park, Oxford; (B) 18 July 1913; (C) M.A. (Oxon.), F.R.I.B.A., Ashpitel Prizeman 1939, Penguin book on *Houses*; (D) Private; (E) Town Planning, Housing, Domestic, Commercial; (F) Council, Public Relations Committee, Library Committee, Town and Country Planning and Housing Committee; (G) R.A. 1940–45.

Chitty: Anthony Merlott. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 20 Gower Street, W.C.1; (B) 10 December 1907; (C) M.A. (Cantab), A.A. Dipl.; F.R.I.B.A.; A.M.T.P.I., Hon. Member, Turkish Institute of Town Planners; (D) Private; (E) All kinds; (F) R.I.B.A. Council 1946–47, 1948–54; A.A. Council 1946–53 (President 1953); (G) Director of Aeroplane Factories (Ministry of Aircraft Production).

Conolly: Harold. Nominated by the R.I.B.A. Council under Bye-law 34. (A) County Architect, County Hall, Chelmsford, Essex; (B) 23 May 1901; (C) F.R.I.B.A.; (D) Official; (E) All kinds of Local Authority work; (F) R.I.B.A. Council 1952–53, as President of the Essex, Cambridge and Hertfordshire Society of Architects; Member of Salaried and Official Architects' Committee; School Design and Construction Committee; R.I.B.A. Visiting Board; London Architecture Bronze Medal Jury; (G) —.

Culpin: Clifford Ewart. Nominated by D. du R. Aberdeen, C. H. Aslin, Harold Conolly, Judith G. Ledeboer, Bryan Westwood, *Fellows*; W. W. Ryder, J. Lewis Womersley, *Associates*. (A) 3 Southampton Place, W.C.1; (B) 15 July 1904; (C) F.R.I.B.A., Winner of open Competition (Bridlington) and three Housing Medals, Articles in Technical Press on small house planning; (D) Private Practice; (E) Municipal Buildings, Housing, Schools; (F) Codes of Practice Committee 1950–51; Town and Country Planning and Housing Committee (Joint Hon. Sec.) 1953–54; Member, Council of the Essex, Cambridge and Hertfordshire Society of Architects; (G) Major, Royal Engineers.

Douglas Jones: Aldwyn. Nominated by C. H. Aslin, Frederick Gibberd, Professor Sir William Holford, Leonard C. Howitt, *Fellows*; D.E.E. Gibson, S. A. W. Johnson-Marshall, E. C. Tory, *Associates*. (A) School of Architecture, Margaret Street, Birmingham 3; (B) 2 April 1910; (C) Dip.Arch. (L'pool), F.R.I.B.A., Athens Bursar 1938; (D) Director, Birmingham School of Architecture; (E) Domestic, some Hotel work; (F) Vice-Chairman, R.I.B.A. Board of Architectural Education; Chairman Prizes and Scholarships Committee, Schools Committee, A.R.C.U.K. Board of Architectural Education; A.R.C.U.K. General Purposes Committee; Council, Manchester Society of Architects—1941–46; (G) Private in Home Guard.

Edwards: John Ralph. Nominated by Eustace Button, J. Nelson Meredith, Robert James Potter, *Fellows*; Ralph Herbert Brentnall, A. H. Down, Kenneth Nealon, R. S. Redwood, *Associates*. (A) 37 Oakfield Road, Clifton, Bristol 8; (B) 7 September 1891; (C) M.B.E., F.S.A., R.W.A., F.R.I.B.A.; (D) Private Practice; (E) Churches, Schools, Housing, Industrial, etc.; (F) Council: 1941–46; Allied Societies' Conference; Practice Committee; Science Committee; (G) Captain, Royal Artillery (1914–18 War); Civil Defence (Regional Commissioner); Deputy Commissioner, W.D.C.

Enthoven: Roderick Eustace. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 4 Raymond Buildings, Gray's Inn, W.C.1; (B) 30 May 1900; (C) A.A. Dipl., F.R.I.B.A., S.A.D.G. Prizeman; (D) Private Practice; (E) Schools, University Buildings, Police Training College and Police Stations, Ecclesiastical Buildings, Shops, Houses, etc.; (F) Vice-President, R.I.B.A. 1951–53, and Vice-Chairman, Executive Committee 1952–54; served on Finance and House, Public Relations and Library Committees, etc.; President A.A. 1948–49; A.A. representative on A.R.C.U.K., and Board of Architectural Education; (G) Served as Captain, M.F.A. and A. Officer, C.M.F. 1944–45; Camouflage Officer to Air Ministry 1940–44.

Fairhurst: Philip Garland. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 55 Brown Street, Manchester 2; (B) 1900; (C) M.A., F.R.I.B.A., J.P.; (D) Private; (E) Commercial, Hospitals, Industrial and Research Buildings; (F) Vice-President, R.I.B.A.; Council; Practice Committee; Chairman of Allied Societies' Conference; President, Manchester Society of Architects; (G) —.

Fisk: Walter William. Nominated by Joseph Emberton, Eric Henry Firmin, Harry St. John Harrison, Edwin Rice, Sir Giles Gilbert Scott, *Fellows*; Douglas James Cole, Maurice Russell, *Associates*. (A) 24 Buckingham Street, Strand, W.C.2; (B) 12 December 1910; (C) A.A. Dipl., F.R.I.B.A.; (D) Private Practice; (E) Housing, Industrial, Hospitals, Schools, Municipal Buildings; (F) —; (G) Royal Engineers 1942–46.

Haird: Tom William. Nominated by G. A. Cope, Frank H. Jones, C. C. Ogden, A. L. Sharpe, *Fellows*; T. A. Collins, A. Drew-Edwards, A. E. Herbert, *Associates*. (A) 6 Millstone Lane, Leicester; (B) 6 February 1896; (C) F.R.I.B.A., External Examiner in Professional Practice at the Leicester School of Architecture; (D) Private Practice, Partner in the Firm of Messrs. Pick, Everard, Keay and Gimson; (E) Hospitals, including General and Mental Hospitals and Sanatoria, Church restoration, Colleges and Technical Schools, Housing, Industrial; (F) President, Leicestershire and Rutland Society of Architects 1949–51, Member of the R.I.B.A. Council for that period. Member, Leicestershire and Rutland Council together with Sub-Committees; (G) March 1915–19: Active Service in Army Service Corps, Machine Gun Corps, Royal Engineers and American Army; 1940–45: Instructor in the Air Training Corps.

Hellberg: Rolf. Nominated by A. H. Gardner, *Fellow*; P. Beard, John J. Gill, Maurice Harris, Duncan Kaye, C. F. Redgrave, G. R. Unwin, *Associates*. (A) 6 Manor Road, Coventry; (B) 17 November 1908; (C) F.R.I.B.A.; (D) Private; (E) Commercial, Industrial, Schools and Houses; (F) Public Relations Committee; Past-Chairman and P.R.O. Coventry Society of Architects; (G) R.A.F. 1941–45.

Holford: Professor Sir William Graham. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 5 Cambridge Terrace, N.W.1: (B) 22 March 1907; (C) B.Arch., F.R.I.B.A., M.T.P.I.; Rome Scholar in Architecture: Florence Bursar; *City of London, Cambridge and Corby Plans: Design in Town and Village:* (D) Central Govt. and Private Practice; (E) Housing, Industrial and Public Buildings; (F) R.I.B.A. Council; Executive Committee; R.I.B.A. Distinction in Town Planning Committee; I.U.A., etc.; (G) —.

Howitt: Leonard Cecil. Nominated by the R.I.B.A. Council under Bye-law 34. (A) City Architect, Town Hall, Manchester 2; (B) 23 November 1896; (C) B.Arch. (L'pool), Dip. T.P. (Manchester), F.R.I.B.A., M.T.P.I.; (D) Official Architecture 24 years, Private Practice 11 years; (E) *Official*: All types of Local Government Buildings, Schools and Housing, Maintenance of Buildings, Administration of Building Bye-laws, Town Planning. *Private*: Banks, Commercial and Industrial buildings, etc.; (F) Member of R.I.B.A. Council 1947–53, Chairman of Salaried and Official Architects' Committee; Member, Committee on Present and Future of Private Architectural Practice; Member, *ad hoc* Committee on Architectural Education; Member, Sub-Committee to draft memorandum on employment of Architects as Chief Officers of Local Authorities; Member, Sub-Committee to consider Representation of Salaried Architects; Member, *ad hoc* Committee on Private Architectural Practice by unqualified Persons; President, City and Borough Architects' Society; Senior Vice-President, Manchester Society of Architects; Fellow, Liverpool Architectural Society, and ex-member of its Council and various Committees; Member, Joint Contracts Tribunal; Member of the Building Research Board; (G) Army: 1915–20, Captain and Adjutant; 1942–45, Major, War Office Staff.

Howitt: Thomas Cecil. Nominated by Colin St. Clair Oakes, *Fellow*; John Carver-Smith, Margaret Copplestone, Philip Gerrard, C. H. Hyde, L. Lloyd Smith, Frederick E. Woolley, *Associates*. (A) St. Andrew's House, Mansfield Road, Nottingham; (B) June 1889; (C) D.S.O., O.B.E., F.R.I.B.A., Three times R.I.B.A. Architecture Bronze Medallist, Nottingham, Derby and Lincoln Society Area; Four times Winner National Civic Competitions; (D) Official and Private, at present in Private Practice; (E) Civic, Universities, Schools, Industrial, Churches, Housing; (F) Vice-President, R.I.B.A., 1944–46; Chairman, Practice Committee, 5 years; R.I.B.A. Representative National Consultative Council, 3 years, and Ministry of Works Science Committee; Past-President Nottingham, Derby and Lincoln Society of Architects; (G) Lieut.-Colonel, Leicestershire Regiment, D.S.O., Légion d'Honneur; (Three times Dispatches); Deputy Commissioner, War Damage Commission.

Musman: Ernest Brander. Nominated by R. E. Enthoven, Frederick Gibberd, H. V. Lobb, Sir Edward Maufe, H. D. Sugden, *Fellows*; Henry Braddock, Charles Woodward, *Associates*. (A) 12 Upper Berkeley Street, Portman Square, W.1; (B) 6 January 1888; (C) B.A. (Lond.), F.R.I.B.A., Donaldson Silver Medallist 1911; (D) Private Practice; (E) Domestic, Licensed Houses, Schools, Churches; (F) —; (G) Regional Officer, Region 9, P.A.D. Ministry of Supply during last war.

North: Thomas Eugene. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 70 West Ham Lane, E.15; (B) 29 April 1905; (C) O.B.E., F.R.I.B.A., R.I.B.A. Dist. T.P.; (D) Official and Private; (E) Schools, Housing, Public Buildings; (F) Committees: Salaried and Official Architects'; Town and Country Planning and Housing; Science; (G) C.D. Controller.

Ormrod: Francis James Massey. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 49 Rodney Street, Liverpool 1; (B) 29 June 1907; (C) B.Arch., Dip.C.D. (L'pool), F.R.I.B.A., M.T.P.I., R.I.B.A. Archibald Dawnay Scholar; (D) Private Practice; (E) Industrial, Commercial, Hospitals, T.A., Schools, Housing, Hotels, Farms; (F) R.I.B.A. Council; Executive; Practice; Professional Conduct; Allied Societies' Conference; Immediate Past-President, Liverpool Architectural Society; L.A.S. Council; (G) 1939–45: Civil Defence.

Pyman: Noel. Nominated by the R.I.B.A. Council under Bye-law 34. (A) The White House, Lands Lane, Knaresborough; (B) 29 December 1904; (C) F.R.I.B.A., (D) Extensive Private Practice; (E) Banks, Churches, Office Buildings, Hotels, Industrial; (F) R.I.B.A. Council, Professional Conduct Committee; President, West Yorks Society of Architects; (G) Reserved—Royal Observer Corps.

Risdon: Frank Heriot. Nominated by Donald Corder, George Garrard, Matthew Maybury, A. W. J. Seeley, Joseph Cedric Swallow, Ivor Warner, *Associates*; Clarence Arthur Poole, *Licentiate*. (A) 30 Sun Street, Finsbury Square, E.C.2; (B) 16 June 1913; (C) A.A. Dipl., F.R.I.B.A.; (D) Private Practice since 1938. Also teaching experience at Northern Polytechnic, Regent Street Polytechnic, Canterbury College of Architecture and South-East Essex Technical College; (E) Housing, Flats, Factories, Service Stations, Office Buildings; (F) Prizes and Scholarships Committee; Board of Examiners; Examinations Committee; (G) Gunnery Lieutenant, R.N.V.R. 1939–45.

Rutter: William Arthur. Nominated by the R.I.B.A. Council under Bye-law 34. (A) Millmeadow Cottage, Bramley, Surrey; (B) 8 January 1890; (C) C.B.E., F.R.I.B.A; (D) Lately Chief Architect, Ministry of Works, now retired from official practice; (E) —; (F) 3 years' service on R.I.B.A. Council as representative of Salaried and Official Architects' Committee; Salaried and Official Architects' Committee; Joint Committee on Tendering Procedure; U.K. Committee of I.U.A.; A.R.C.U.K and Committees; (G) —.

Sheppard: Richard Herbert. Nominated by C. H. Aslin, Sir Hugh Casson, Harold Conolly, Frederick Gibberd, F. R. S. Yorke, *Fellows*; D. E. E. Gibson, S. A. W. Johnson-Marshall, *Associates*. (A) 16 Bedford Place, W.C.1; (B) 2 July 1910; (C) A.A. Dipl., F.R.I.B.A., Henry Florence Studentship 1934; *Building for the People*; *Prefabrication in Building*, etc.; (D) Private Practice 1938 onwards; M.O.W. Post War Building Directorate, 1941–43; (E) General: School Buildings; Housing, Industrial, etc.; (F) R.I.B.A. Council 1949–52; Various Committees; (G) —.

Stillman: Cecil George. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 4 Fitzroy Park, Highgate, N.6; (B) 6 April 1894; (C) M.M., F.R.I.B.A.; (D) Official; (E) Local Government Practice: Schools, Hospitals, Police and Fire Services, etc.; (F) Vice-President, R.I.B.A. 1946–48; on Council, 1939–49, 1950–54; Executive Committee; Hospitals Committee; School Design and Construction Committee; Salaried and Official Architects' Committee; (G) 1914–18, R.E.; 1939–45, Civil Defence and Home Guard.

AS ASSOCIATE MEMBERS OF COUNCIL

Allen: William Alexander. Nominated by the R.I.B.A. Council under Bye-law 34. (A) Building Research Station, Watford, Herts; (B) 29 June 1914; (C) B.Arch. (Manitoba), A.R.I.B.A.; *Publications*: Papers on Acoustics, Lighting, Building Construction, Factory Design, and on Science and Architecture; (D) Private and Official experience; Chief Architect, Building Research Station; (E) Private Practice: mainly Housing and Flats; Official work: mainly consulting or research relating to Factories, Schools, Flats and Houses, as on subjects such as Acoustics, Lighting and Heat; (F) Library Committee eight years; Professional Text and Reference Books Committee (Chairman); Science Committee (Vice-Chairman); *ad hoc* Committee on Paint Colour Ranges, etc.; (G) —.

Bedford: Eric. Nominated by the R.I.B.A. Council under Bye-law 34. (A) Chief Architect, Ministry of Works, Abell House, S.W.1; (B) 23 August 1909; (C) C.V.O., A.R.I.B.A.; (D) Private and Official (Local and Central Government); (E) Public Buildings; (F) 2 years Salaried and Official Architects' Committee; 1 year Practice Committee; 1 year Public Relations Committee; (G) —.

Castle: James Thomas. Nominated by John Greaves, Leonard C. Howitt, Oswald P. Milne, Denis Poulton, F. R. Steele, *Fellows*; John Harrison, E. D. Lyons, *Associates*. (A) Wilton House, Parkside Road, Reading; (B) 24 February 1903; (C) A.R.I.B.A., A.M.T.P.I., Ashpitel Prizeman 1928; (D) Official; (E) All types of Local Government work, including Housing; (F) R.I.B.A. representative on A.R.C.U.K., Executive Committee of Berkshire Society of Architects; Previously Chairman, Bradford Branch, W.Y.S.A.; (G) Civil Defence.

Curtis: Dr. Frederick Francis Charles. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 222 Marylebone Road, N.W.1; (B) 9 August 1903; (C) A.R.I.B.A.; (D) Private Practice until 1946, Official since; (E) Domestic, Industrial, Educational, Welfare, Transport; (F) Salaried and Official Architects' Committee; Competitions Committee; Science Committee; Practice Committee; A.R.C.U.K.; (G) Service in Royal Engineers 1942–45.

Cusdin: Sidney Edward Thomas. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 53 Bedford Square, W.C.1; (B) 28 July 1908; (C) O.B.E., A.A.Dipl., A.R.I.B.A., Henry Saxon Snell Prize and Theakston Bequest 1949–50; (D) Private; (E) General and Hospitals; (F) R.I.B.A. Council 1950–51; Junior Members' Committee 1938–40; Public Relations Committee 1950–54; Library Committee 1953–54; Prizes and Scholarships Committee 1953–54; Council A.A., 1937–40: 1946–52; President A.A., 1950–51; (G) R.A.F., 1940–46.

Drew-Edwards: Anthony. Nominated by Douglas A. Blakesley, T. A. Collins, K. D. Edwards, Robert J. Howrie, Robert Kinton, Hugh S. Smith, W. Livingstone Stuart, *Associates*. (A) 53 Regent Road, Leicester; (B) 31 December 1916; (C) A.R.I.B.A., Lecturer at Leicester School of Architecture; (D) Official and Private Practice; (E) Housing and Industrial; (F) Hon. Secretary, Leicestershire and Rutland Society of Architects; (G) 1939–45, Royal Engineers.

Lacey: William Daniel. Nominated by C. H. Aslin, Professor R. Gardner-Medwin, Leonard C. Howitt, Richard H. Sheppard, *Fellows*; W. A. Allen, Anthony Cox, P. E. A. Johnson-Marshall, R. H. King, *Associates*. (A) County Architect's Dept., County Hall, Hertford; (B) 8 January 1923; (C) A.R.I.B.A. A.M.T.P.I., Articles in Technical Press on schools and new building techniques; (D) Private Practice, Industrial and Local Authority Offices; (E) *Private Practice*: Drill Halls, Hostels, Housing. *Local Authority*: Educational, using a high proportion of factory-made components; (F) —; (G) —.

Matthew: Professor Robert Hogg. Nominated by the R.I.B.A. Council under Bye-law 34. (A) Keith Marischal, Humbie, East Lothian; (B) 12 December 1906; (C) C.B.E., M.A., Dist. T.P., A.R.I.B.A.; *Prizes*: Soane, Pugin, Arthur Cates, Bossom; Many articles for Journals, Press and the B.B.C.; Member Fine Art Commission for Scotland; Historic Buildings Council for Scotland; M.O.W. Central Council for Research; (D) Government Service; Local Authority Service; Academic post (present), Private Practice; (E) General; (F) R.I.B.A. Council; Salaried and Official Architects' Committee; Town and Country Planning and Housing Committee; Science Committee, United Kingdom Committee, I.U.A.; (G) Government service during War.

Mellor: Tom. Nominated by U. Aylmer Coates, J. H. Forshaw, Professor R. Gardner-Medwin, G. Noel Hill, *Fellows*; G. Grenfell Baines, A. A. Bellamy, R. Ellersley McCaughan, G. Mary McKenzie, J. R. M. Poole, *Associates*. (A) Market Hall, Lytham, Lytham St. Annes; (B) 23 October 1914; (C) B.Arch.(L'pool), A.R.I.B.A., A.M.T.P.I., Articles in Technical Journals; (D) Official, Private Practice and Teaching; (E) Housing, Industrial, Schools, Shops, Industrial Design Consultant; (F) Executive Committee of the Preston, Blackburn and District Society of Architects 1950–54; (G) —.

Richardson: Douglas Willerton. Nominated by David John Howells, Herbert Tom Wykes, *Fellows*; Brinley Arthur Crispin, Ronald George Clifton Linton, William Idwal Mort, Paul Heaton Rodgers, Alan Vanstone, *Associates*; Benjamin Thomas Llewellyn, *Licentiate*. (A) Town Hall, St. Helens, Lancs.; (B) 7 December 1907; (C) A.R.I.B.A.; (D) Official; (E) Municipal and Industrial; (F) —; (G) —.

Statham: Stephen Haywood. Nominated by S. Clough, E. H. Firmin, *Fellows*; P. J. Cole, D. G. Parsey, M. H. Russell, P. H. Steinberg, J. A. Stiff, *Associates*. (A) 39 Devonshire Street, W.1; (B) 23 November 1917; (C) A.R.I.B.A.; (D) Private Practice; (E) Industrial and Housing; Work for Stepney B.C. and other London Boroughs; Work in Saudi Arabia; (F) —; (G) Assistant E.W.O., Ministry of Works for West Wales.

Thomas: Norman Percy. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 10 Cathedral Road, Cardiff; (B) 22 May 1915; (C) M.B.E., T.D., Dip.Arch., A.R.I.B.A., R.I.B.A. Archibald Dawnay Scholar 1935–36; (D) Private Practice—Sir Percy Thomas & Son (Cardiff and Swansea); (E) General; (F) Member of Council of the South Wales Institute of Architects, 1949–51; (G) 1939–45 War: Major, Royal Artillery, Home and overseas; Post War: Lieut.-Col., Royal Engineers (T.A.).

Wilson: Leslie Hugh. Nominated by Johnson Blackett, Patrick Francis Burridge, Maurice Howard Forward, Leonard Cecil Howitt, Harold Bertram Rowe, Charles Cecil Shaw, *Fellows*; John Hugh Lloyd Owen, *Associate*. (A) 1 Manwood Avenue, Canterbury. (B) 1 May 1913; (C) O.B.E., A.R.I.B.A., A.M.T.P.I., Articles in technical and local press; (D) Private Practice pre-war, Official Architect since 1939; (E) Housing, Schools, Public Buildings, Town Planning; (F) S.E.S.A. Council, Vice-Chairman, Canterbury Chapter 1952–54; Chairman-elect, Canterbury Chapter 1954–55; (G) Civil Defence 1939–45; War Damage Officer, Canterbury.

Woollatt: James Gordon. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 4 and 6 Clarendon Street, Nottingham; (B) 17 November 1915; (C) D.F.C., M.A. (Cantab), A.R.I.B.A.; (D) Private Practice; (E) Maltings, Breweries, Hospitals, Schools, General Industrial, Dyehouses, Banks, Churches, Almshouses, etc.; (F) Public Relations Committee; Member of Council of the Nottingham, Derby and Lincoln Society of Architects; (G) R.A.F.V.R. 1938–46; Bomber Command, Pilot; D.F.C. and Air Efficiency Award.

AS LICENTIATE MEMBERS OF COUNCIL

Goodman: Stanley Vincent. Nominated by the R.I.B.A. Council under Bye-law 34. (A) Shire Hall, Bedford; (B) 5 December 1894; (C) L.R.I.B.A.; (D) County Architect, Bedfordshire; (E) Schools, Colleges, County Buildings, Libraries, restoration of Ancient Buildings; (F) Council 1949–50 and 1951–54; Committees—Professional Conduct, Finance and House, Licentiateship; Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects—President 1949–50; (G) 1914–18 War, served B.E.F. France, Territorial Army (rank Major); 1940–45, Home Guard.

Joel: Dudley Watkin. Nominated by the R.I.B.A. Council under Bye-law 34. (A) 33 High Street, Croydon; (B) 30 November 1904; (C) L.R.I.B.A.; (D) Private Practice as Principal; (E) Domestic, Hotels, Schools, Churches and general; (F) Hon. Sec. Croydon Chapter, S.E.S.A. 1948–52; Hon. Auditor, S.E.S.A. 1952–53; (G) Chief Vetting Officer to Ministry of Supply, Building Control Section (C.B.C.)—A.R.P. Warden 1939–45; Home Guard 1942–45.

Vincent: Allan William. Nominated by Johnson Blackett, Patrick Francis Burridge, Maurice Howard Forward, Leonard Cecil Howitt, Harold Bertram Rowe, Charles Cecil Shaw, *Fellows*; John Hugh Lloyd Owen, *Associate*. (A) 33 Esplanade, Harwich, Essex; (B) 4 February 1895; (C) L.R.I.B.A.; (D) Borough Architect; Municipal and Private Practice; (E) Town Planning, Housing, Town Halls, Electricity Showrooms, Concert Halls, Band Pavilion, Public Library, Municipal Depots, Harbour Schemes, etc.; (F) Member, Colchester Chapter of the Essex, Cambridge and Hertfordshire Society of Architects; (G) 1914–18, Army; 1939–45, Rescue Liaison Officer, Civil Defence.

Attendances at Council Meetings Session 1953–54

(UNLESS OTHERWISE STATED MEMBERS' ADDRESSES ARE IN LONDON)

THE COUNCIL (9 Meetings)

President: Howard Robertson, 9.
Past Presidents: A. Graham Henderson (Glasgow), 4; Sir Percy Thomas (Cardiff), 1.
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Associate Members of Council: G. Grenfell Baines (Preston), 9; The Hon. Lionel G. Brett (Watlington, Oxford) [*F.* 13.10.53], 5; D. E. E. Gibson (Coventry), 5; P. E. A. Johnson-Marshall, 9; S. A. W. Johnson-Marshall, 8; R. A. H. Livett (Leeds), 2; Professor R. H. Matthew (Humbie, East Lothian), 6; Peter F. Shepheard, 8; J. Lewis Womersley (Sheffield), 6.
Licentiate Members of Council: Bernard H. Cox, 7; S. Vincent Goodman (Bedford), 7; G. H. Morris (Coventry), 9.
Representatives of Allied Societies in the United Kingdom: (1) *Six Representatives from the Northern Province of England:* C. A. Harding [*F*] (Northern Architectural Association), 8; G. B. Howcroft [*F*] (Manchester Society of Architects), 8; F. J. M. Ormrod [*F*] (Liverpool Architectural Society), 9; Allanson Hick [*F*] (York and East Yorkshire Architectural Society), 9; Noel Pyman [*F*] (West Yorkshire Society of Architects), 8; S. Elden Minns [*L*] (Sheffield, South Yorkshire and District Society of Architects and Surveyors), 7. (2) *Five Representatives from the Midland Province of England:* C. E. M. Fillmore [*F*] (Birmingham and Five Counties Architectural Association), 7; C. C. Ogden [*F*] (Leicestershire and Rutland Society of Architects), 5; K. A. Milner [*L*] (Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects), 4; F. H. Crossley [*F*] (Nottingham, Derby and Lincoln Society of Architects), 8; R. O. Bond [*F*] (East Anglian Society of Architects), 9. (3) *Six Representatives from the Southern Province of England:* Edward Narracott [*F*] (Devon and Cornwall Society of Architects), 6; R. J. Potter [*F*] (Wessex Federal Society of Architects), 9; David Booth [*F*] (Berks, Bucks and Oxon Architectural Association), 7; Gordon Sutcliffe [*A*] (Hampshire and Isle of Wight Architectural Association), 3; R. J. Page [*F*] (Essex, Cambridge and Hertfordshire Society of Architects), 9; R. W. Paine [*A*] (South-Eastern Society of Architects), 8. (4) *Four Representatives of Allied Societies in Scotland:* Thomas S. Cordiner [*F*] (Glasgow), 5; L. Grahame MacDougall [*F*] (Edinburgh), 5; William McCrea [*F*] (Glasgow), 9; T. W. Marwick [*F*] (Edinburgh), 6. (5) *One Representative of Allied Societies in Wales:* L. R.

Gower [F] (South Wales Institute of Architects), 7. (6) *Two Representatives of Allied Societies in Ireland:* Francis McArdle [F] (Royal Institute of the Architects of Ireland), 1; J. M. Aitken [A] (Royal Society of Ulster Architects), 3.
Representatives of Societies in Alliance with the Royal Institute Overseas: J. Roxburgh Smith [F] (The Royal Architectural Institute of Canada), 0; L. Sylvester Sullivan [F] (Representative in the United Kingdom), 4; Cobden Parkes [F] (The Royal Australian Institute of Architects), 0; A. Graham Henderson [F] (Representative in the United Kingdom), 4; J. I. King [F] (The New Zealand Institute of Architects), 0; R. H. Uren [F] (Representative in the United Kingdom), 2; J. N. Cowin [A] (The Institute of South African Architects), 0; Michael T. Waterhouse [F] (Representative in the United Kingdom), 6; J. B. Fernandes [A] (The Indian Institute of Architects), 0; Stuart Bentley [F] (Representative in the United Kingdom), 6.
Representative of the Architectural Association (London): Bryan P. Westwood [F], 8.
Representative of the Association of Building Technicians: K. J. Campbell [A], 4.
Chairman of the Board of Architectural Education: Anthony M. Chitty [F], 6.
Chairman of the R.I.B.A. Registration Committee: †Denis Poulton [F], 4; ‡Howard V. Lobb [F], 2.
Two Representatives of the R.I.B.A. Salaried and Official Architects' Committee: *Leonard C. Howitt [F], 7; *W. A. Rutter [F], 7.

Marked thus:

*Were appointed at or after the first meeting of the Council—possible attendances, 8.
†Retired as Chairman of the R.I.B.A. Registration Committee after the seventh meeting of the Council—possible attendances, 7.
‡Appointed Chairman of the R.I.B.A. Registration Committee after the seventh meeting of the Council—possible attendances, 2.

Book Reviews

Garagen und Tankstellenbau [Garages and Service Stations] etc., by *Rolf Vahlefeld* and *Friedrich Jaques*. (Handbücher zur Bau- und Raumgestaltung *series*.) 11¾ in. 250 pp. text illus. Munich: Callwey. 1953. DM 39.

The book begins with an historical record illustrated with delightful sketches of horse-wagon and carriage stabling from the 15th century, through the early motor-car age, up to the 1930's. The major part of the book is devoted to the housing of private cars singly and in groups. Diagrams and street maps illustrate the siting of multiple car garages in urban areas; the multi-storey garages are particularly interesting and indicate various methods of conveying cars to the upper floors.

A schedule with diagrams of turning radii and other data is given for certain vehicles to assist the planning of the garage and particularly of the access to it, and sketches are shown of various types of garage. Many service stations are illustrated by clear sketches and photographs, from simple lay-outs to large and elaborate stations where repair-workshops, buffets, and public waiting-rooms are included.

A number of bus garages are described and illustrated. Most of the German examples appear to be based on austere principles of construction; for instance the bus parking areas have numerous internal stanchions so that buses must enter at one end of the park and leave by the other. Larger site areas are therefore required to allow for external circulation of the buses. A simple economical plan on these lines was adopted at Dortmund, whereby buses leaving the public highway pass along a short private access road to the servicing bay where the buses are washed and minor repairs undertaken. The buses leave at the end of this bay and turn through 180° to one of the two covered parking areas. Refuelling is arranged in the open air, contrary to the modern English practice.

Several bus garages outside Germany are illustrated, including one in New York, particularly interesting on account of its four floors and roof parking; a garage for 80 buses and trolleybuses at Rouen, with a twin parking area; and two English garages, one at Bournemouth for Bournemouth Corporation Transport, and the other, very fully illustrated, at Garston, Watford, for the London Transport Executive.

Although a translation of technical terms is provided at the end of the book, it is necessarily restricted, and English readers unfamiliar with the German language may find some difficulty in interpreting the plans. The sketches and photographs are, however, numerous and good, and much useful information can readily be obtained.

C. S. BOUGHTON [L]

A Short Dictionary of Architecture, including some common building terms, by *Dora Ware* and *Betty Beatty*. 3rd ed. 8¾ in. xiv + 135 pp. text illus. Geo. Allen & Unwin. 1953. 12*s*. 6*d*.

This is a revised and enlarged edition of a handy reference book first published in 1944. It should prove useful to both the lay and professional student of architecture, being up-to-date—a rare virtue among architectural dictionaries—and intelligible in its definitions. When words prove inadequate to explain a term clearly, line drawings have been provided by Betty Beatty [A].

Planning—The Architect's Handbook, by *E. and O. E., pseud.* (S. Rowland Pierce and Patrick Cutbush). 7th ed. 10¾ in. × 8½ in. 571 pp. incl. advts. text plans. Iliffe, for A. & B. N. 1953. £1 10*s*.

'E. and O. E.' supply the essential facts about almost every type of building that an architect is likely to be asked to design. Their book is an incomparable time and trouble saver. The latest edition, completely revised, contains 550 large pages of information and 650 line drawings. New sections deal with hostels, public service vehicles and camps for motorists. The President of the R.I.B.A. has written an introduction.

Plumbing, by *John H. Innes*. (EUP Teach yourself building books.) 7 in. 192 incl. viii. pp. incl. pp. of illus. English Univs. Press. 1952. 6*s*.

The little books of the Teach Yourself Building series, each written by an expert, are not intended to take the place of textbooks, but are written for those who need a working knowledge of the subjects with which they are concerned.

Architects' Year Book 5. *Trevor Dannatt*, editor. [Arts. by Rudolf Wittkower and others.] 9¾ in. 232 pp. incl. pls. text illus. Elek Books Ltd. 1953. £2 2*s*.

One cannot help asking the question: 'What is a "year book"?' The name might, presumably, imply something in the nature of a large, weighty and invaluable compendium for the whole profession, some sort of 'Who's Who' and 'What's What' of architecture, rolled into one. Such a publication might have its uses but one knows that in these times it is not an economic possibility. As an alternative this series of magazine articles, mainly on various aspects of the Modern Movement from CIAM to the UNO building and so back full circle to Chandigarh, has its fascination . . . but why 'year book'? To review the year's work the world over—even when limited to what is significant—is something that only the professional press, week by week and month by month, can even attempt.

And, to be fair, that is not what the *Architects' Year Book* does attempt. It is highly selective. As an annual magazine—for that is what it really is—with magazine format and advertisements between hard covers, the *Year Book* is admirably produced by the Editor, by Elek Books and by the Dutch printers. Patrick Heron, Leslie Martin, Max Bill, Fello Atkinson, the Smithsons, etc. etc., are one's guarantee of a pleasant evening's reading, although their articles could just as well, perhaps even better, have gone into some glossy monthly on either side of the Atlantic. Some of the technical articles—specially one on 'Recent Developments in Prestressed Concrete' by K. Hajnal-Kónyi—and Professor Wittkower's essay on systems of proportion provide substance, learning and information.

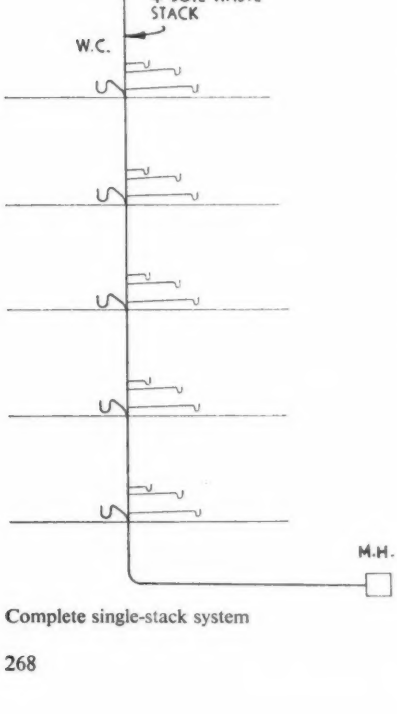
This, in fact, is a book that any progressive architect may like to have lying about on his Finmar table; in buying it, however, he must remember that any merely annual publication must fail so hopelessly to keep pace with current work that much of the material is excessively familiar and has been equally well dealt with elsewhere. That is not the fault of the brilliant contributors; it is the weakness of the publication as such. While the content is slick, clever, contemporary, cosmopolitan, the basic idea is more in keeping with the lost world of *Keepsake* and *Friendship's Offering*. In other words: in the welter of paper and photography amidst which we have to live, is there really a place for a 'year book'?

R. FURNEAUX JORDAN [F]

Review of Construction and Materials

Single-Stack Plumbing. At present there are at least four systems of plumbing in use for buildings of more than one storey: (1) the two-pipe system, with a soil stack and vent stack and another stack and vent stack for wastes, four stacks in all; (2) the two-pipe system with soil stack and its vent stack and separate unventilated stacks for sinks, baths and basins, five stacks in all; (3) the one-pipe system in which all appliances discharge into one stack and all traps are connected to a vent stack, two stacks in all, and (4) the single-stack system in which all appliances discharge into one stack and the traps are not ventilated. This fourth system—the single-stack—would obviously be less costly than the others as less piping is required and it would merit adoption with one important proviso, namely, that the system does not introduce any danger of the contents of the traps being drawn off by induced siphonage, that is, by the discharge from another appliance.

With that proviso in mind the Building Research Station, during the past three or four years, has been carrying out experiments with the single-stack system and B.R.S. Digests Nos. 48 and 49 deal in detail with the subject. Tests have been made with a full-size model demonstration installation set up in Queen Anne's Mansions, London, by permission of the Admiralty, to reproduce the conditions applicable to a block of flats of not more than five storeys. The system has also been installed in L.C.C. flats in London and these provide experience lasting over two years or more. The findings of these model and actual tests are—that the system works without danger of undesirable results, provided that the following three simple design rules are followed as recommended by the B.R.S.



Complete single-stack system

(1) The w.c. branches should be curved into the stack in the direction of flow; the basin, sink and bath branches should run straight in. The correct curvatures are given by British Standards components and by some special fittings now available.

(2) The bend at the bottom of the stack should have an easy sweep to the drain, and a sudden change of direction should be avoided. Additional precautions are sometimes necessary at the bottom of the stack but the overall cost is little different from that of the complete single-stack system.

(3) The waste pipes should be as short as possible, which means a kitchen-bathroom plan with appliances closely grouped round the stack. A wider range than that shown in the accompanying plan and elevation is in fact allowable but the arrangement shown is one of the best. To get the best results the architect should consider the sanitary services at an early stage in his design.

For a block of five-storey flats the costs of the various systems are given as follows:

Two-pipe system, £41 per flat.
One-pipe system, £34 per flat.
Single-stack system, £20 per flat.

Apart from the saving in cost the reduction in the number of pipes will help aesthetically, especially as with a small number of pipes it is more likely that they can be hidden in ducts.

At a Press demonstration in Queen Anne's Mansions the installation inspected comprised a single stack running up through five floors, on the lowest floor a w.c. pan was connected to the stack and also a trap representing a basin or sink waste; an easy bend at the bottom of the stack led away from the room. The traps of the pan and the basin were full of water and parts of the piping were in glass or perspex so that the flow in the system could be observed. At a signal various amounts of water were released from the top of the installation, representing the discharge from one or more w.c.s and basins, including toilet paper and newspaper. There was no effect on the water in the traps beyond a very slight see-saw motion. A similar demonstration was given on the floor above, but in this case the w.c. pan was flushed from a cistern in the normal manner.

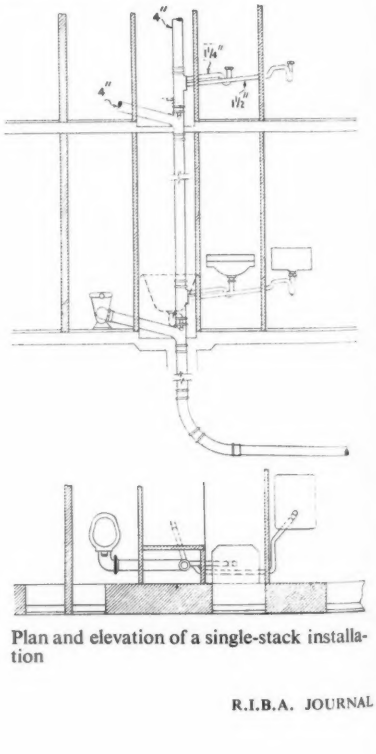
The transparent sections of the demonstration stack enabled the behaviour of the discharge to be studied as it passed down the stack, and it was pointed out that the water kept to the inside surface of the stack with air forming a central core. The most stringent test was when the wad of newspaper was flushed down, as this might have acted as a plug filling most of the diameter of the pipe, but in fact it made no observable difference.

Although so far flats of not more than five storeys have been under consideration, research is being extended to cover higher buildings.

The subject of single-stack drainage for multi-storey flats was included in the Health Congress held at Scarborough last April by the Royal Sanitary Institute, where a paper was presented by Mr. A. F. E. Wise, M.Sc., of the B.R.S., and Mr. J. Croft, F.I.San.E., F.S.I.A., Chief Inspector, Public Health Department, L.C.C. Mr. Wise has carried out the research work at the B.R.S., and Mr. Croft has worked in close co-operation with him and has also kept under his scrutiny the behaviour of the system installed in L.C.C. flats.

Part of the economy in cost of the single-stack system is due, of course, to the lessened amount of material required, and the following comparison is extracted from the Congress paper, based on five-storey flats, for a fully-vented two-pipe system and for an unvented single-stack arrangement, the two-pipe requirements being quoted first, in pounds weight; iron, 1,454 as against 640; brass, 83 as against 60; copper, 87 as against 45, and lead 83 as against 46.

The authors of the paper state that in their experience 'a properly designed system of this type is, to say the least, no less safe and efficient than two-pipe drainage, and it may be more hygienic and more effective in the long run'.



Plan and elevation of a single-stack installation

The Work of the Northern Ireland Housing Trust

IN NOVEMBER 1949 we published an account of the work which the Northern Ireland Housing Trust had undertaken since beginning its work in February 1945. Another four years have now gone past; the Trust has got well over its somewhat hurried launching and departure into the troubled seas of housing, the crew is well trained and in good heart and sailing is now proceeding in rather calmer waters than in the first four years. In less flamboyant language, the Trust has now numerous finished estates to its credit and is able to use accumulated experience in the design of houses, layout of estates and management of contracts; the problems occasioned by rising costs of building and shortages of skilled labour and materials are, for the moment at least, neither so disrupting nor so pressing as they have been.

Therefore this seemed a good occasion for the JOURNAL to visit Northern Ireland and review the Trust's progress. Readers of our earlier article will remember that the Trust was created by the Government of Northern Ireland to supply, in general terms, 25,000 out of 100,000 new dwellings then estimated to be needed, the remainder to be provided by local authorities and private enterprise. It will also be remembered that hardly any housing, as the term is understood in Great Britain, had been done during the inter-war period in Northern Ireland, so that public interest and experience of it was very small.

An Act of Parliament empowers the Trust to acquire, plan, finance and manage its estates. It is governed by a board of five members who serve without salary or fee and now has its own experienced staff of architects, engineers, quantity surveyors and housing managers. All building is done by private contractors.

Perhaps the outstanding feature of the Trust's policy has been its determination from the beginning to build to a fixed rent. It has maintained this policy in spite of rising building costs and progressively higher interest rates. The rent charged for a typical 900 sq. ft. three-bedroom house in 1945–46 was 14*s.* per week. The interest rate then stood at 2½ per cent. An increase of ½ per cent means an increase of 2*s.* in the rent. In spite of the fact that the interest rate is now 4 per cent (October 1953) and building costs have risen considerably, the rent charged for an 840 sq. ft. three-bedroom house is now only 15*s.* This has been achieved by the slight reduction in floor area indicated, by placing the bathroom downstairs (which many tenants approve) and by drastic overhauling of specifications and economies in site works.

In judging this considerable achievement, it should be realised that the standards of accommodation laid down by the Northern Ireland Ministry of Housing and Local Government are a little lower than those in Great Britain and—an important point—rather more flexible. Also, that the subsidy, which is the same as the Scottish subsidy, is modified according to the size of house and number of rooms. These are mitigating circumstances which do not appreciably lessen the credit due to the Trust for its achievements.

Gilford. Typical terraces of Type U, 4 and 5 apartment houses. Construction traditional

It should be realised that the Trust, unlike local authorities in Great Britain, is not a rate-collecting body, nor does it possess pre-war dwellings built at low cost, the rents of which can be raised. These two means of easing the rents of today's expensive building, used considerably in Great Britain, are denied it. Nevertheless, since its fourth year of existence, it has made a small annual surplus.

The rent figures quoted in this article are exclusive of rates, over which the Trust has no control. These vary from 5*s.* 5*d.* to 9*s.* 1*d.* according to locality, so that the tenant pays altogether from 20*s.* 5*d.* to 24*s.* 1*d.* per week according to where he lives.

The work of the Trust could be considered meritorious if all the houses were grouped in a few large estates. This is far from being the case. At present the Trust owns or is in process of acquiring 103 estates, widely distributed over Northern Ireland and many in places where contracting services and skilled labour are difficult to obtain. Fifty-one estates have been completed and work is proceeding on 31. The largest estate, when completed, will have 3,000 dwellings; the two smallest have 17 dwellings each.

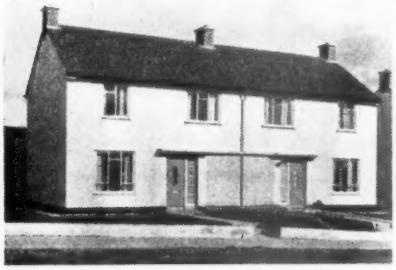
Up to now 12,177 dwellings have been built and are managed by the Trust; a further 274 have been transferred to local authorities. During the last 12 months, 1,929 were completed, 1,976 are under construction and another 1,454 are under contract.

The policy of building to a rent has led to some interesting developments in house and flat design and construction. The rent-paying capacity of tenants is rather lower than in Great Britain while building costs are higher because so much material and equipment has to be imported. Therefore the urge towards economies in design and construction has been powerful.

It is noteworthy that the Trust was one of the first housing authorities in the British Isles to concentrate on terraces, now so popular as a means of achieving economy. As early as 1945 the Cregagh estate at Belfast was built entirely as terraces, one consisting of as many as 175 houses, though because of its architectural handling and use of re-entrants it gives no feeling of monotony. The external corners are filled with two-bedroom flats and the internal by six-apartment houses.

At first the Trust built mainly three-bedroom houses with some two-bedroom and some four-bedroom. In 1947 came the first economy drive resulting in an 800 sq. ft. three-bedroom house with bathroom downstairs. In 1949 the size was increased to 840 sq. ft. and, in response to demand, the ground floor was rearranged. At the same time two-bedroom houses were abandoned in favour of cottage flats. These are being built in the now customary blocks of four dwellings, two up and two down, with the appearance of a pair of semi-detached houses. Each flat has its own entrance. The three-bedroom flats are 695 sq. ft. on the ground floor and 819 sq. ft. on the upper, averaging 757 sq. ft. Two-bedroom flats are also built. The cost is materially below that of similar houses and there are big economies in site costs. On an estate

Type K, 5 apartment houses. 753 sq. ft. and 800 sq. ft. Rents, 10*s.* to 13*s.*



Type J, 5 apartment houses. 967 sq. ft. and 1,018 sq. ft. Rents, 15*s.* to 16*s.* 6*d.*

Type D, 2 and 3 apartment corner flats. 531 sq. ft., 513 sq. ft. and 590 sq. ft. Rents, 10*s.* to 11*s.* 6*d.*

where these ancillary costs per house are £250, those for a cottage flat are £150. Some three-storey and a few four-storey flats with common entrances are being built. These are cheap to build and allow rents of 10*s.* 6*d.* and 11*s.* per week, but the Trust do not use them much on county estates though building them in large numbers around Belfast and in the provincial towns.

In 1950 a semi-detached villa of 970 sq. ft., either with a garage or with space for one was added to the range of designs to meet a demand from those who were willing and able to pay higher rents for better accommodation. The rent is 23*s.* per week.

A new policy has now been adopted by which the 840 sq. ft. house has been dropped and replaced by one of 950 sq. ft., letting at 15*s.* or 16*s.* according to location, and a 750 sq. ft. house, letting at 10*s.* to 13*s.*, both built in terraces. A typical estate will contain these houses, the 970 sq. ft. villas mentioned above, three-bedroom and two-bedroom cottage flats, letting at 12*s.* and 11*s.* respectively, and a number of two- and three-bedroomed three-storey and

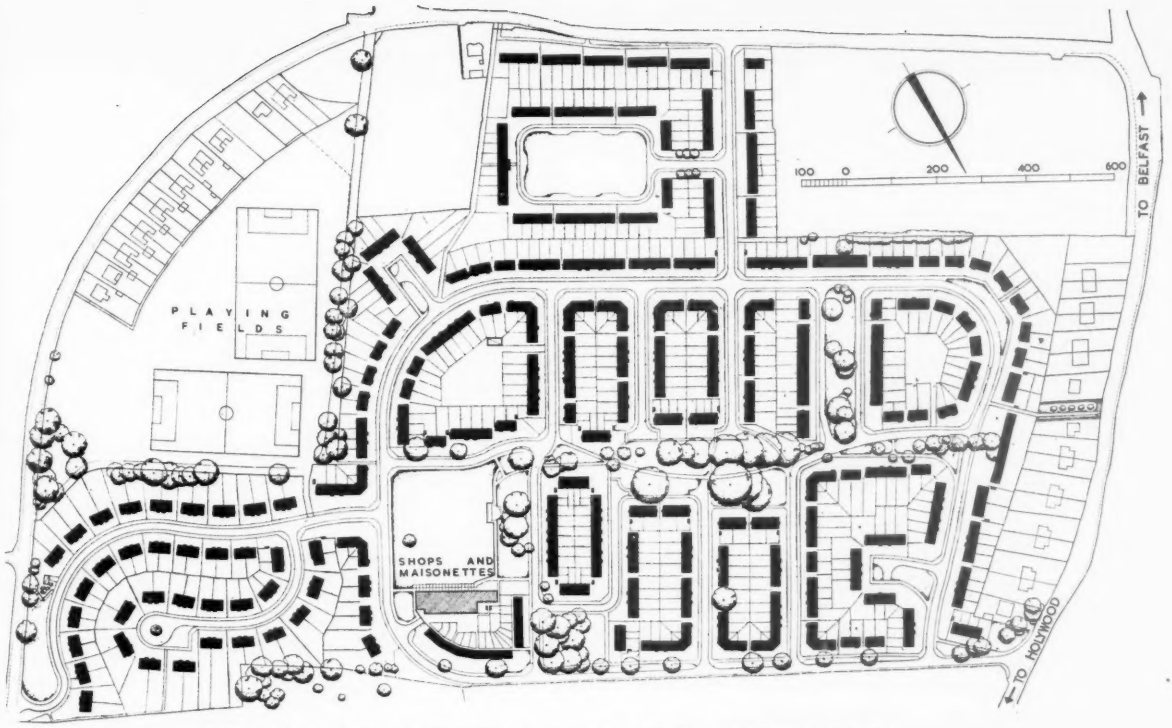
Shops and 3 apartment flats at Rathcoole, a large estate now under construction near Belfast

A group of Type A 5 apartment and Type E 4 and 5 apartment houses at Rathcoole

Holywood (see opposite page). Footpath access to a group of Type B 3 apartment houses and Type G 4 apartment flats, round a green

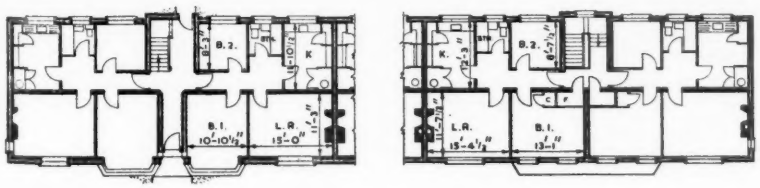
four-storey flats at the rents quoted above. In addition there will be corner one-bedroom flats letting at 10*s.* and a number of old people's houses letting at 6*s.* 6*d.* The latter have a good-sized living-room with bed recess, kitchen and bathroom.

The single-storey cottage, of which we illustrate one scheme, was introduced in



Holywood Estate, near Belfast. 559 dwellings of 9 types and 5 shops. The site falls slightly from the south

Type C. Flats at Holywood, 3 apartment (2 bedroom). Plans below. Ground floor 600 sq. ft.; upper floors 650 sq. ft. average, plus 40 sq. ft. store each. Rent 10*s.* 6*d.* Construction traditional 13½ in. and 11 in.; facing brick finish

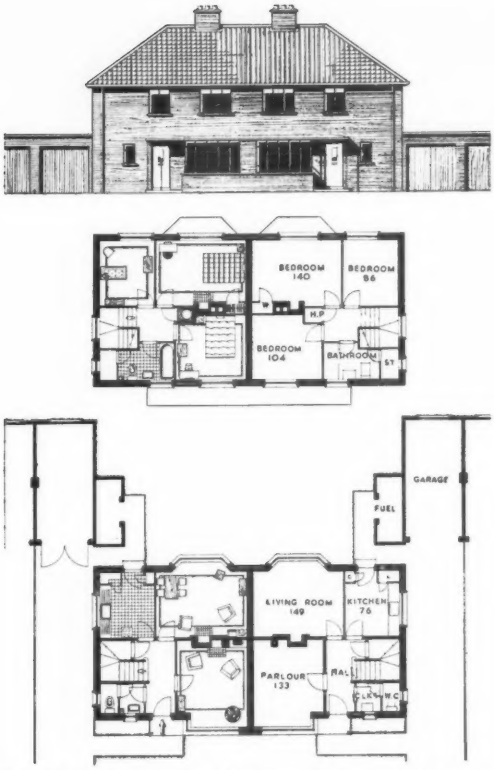


three- and four-bedroom types quite early in the life of the Trust. It is traditional in form and accords well with the rural landscape, lending itself to pleasant grouping. Though chiefly used in rural areas, small groups are occasionally fitted into larger schemes to give variety. The blocks of old people's dwellings are of similar form and accord well with them.

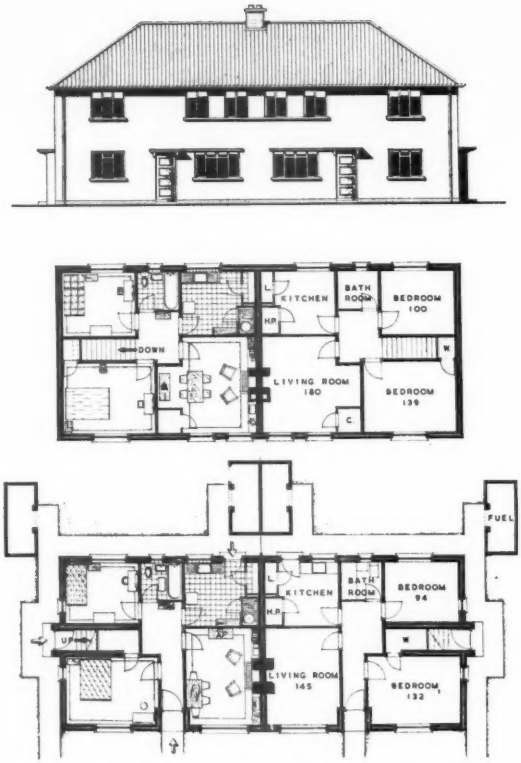
So much for facts and statistics. How do these schemes strike the eye of the visitor from Great Britain? A first impression is the uniformly high quality of the layout and grouping. In this the architects have achieved a standard at least equivalent to the best in Great Britain and well above the average. They seem to avoid that bugbear of housing layout—an appearance of monotony. Nowhere does one see long, dull vistas of straight roads; there is an effect of enclosure, of small communities and well-placed groups of dwellings even in quite large schemes. This can only follow from a close study of each site and its contours and other features, a realisation that the drawing board is not a field for fancy shapes and lastly, a real appreciation of form in grouping.

Certainly the architects have made full use of such beautiful well-treed sites as have been selected in a country which has, on the whole, few trees. A wholly flat site seems to be an exception and few are entirely bare of trees. But Great Britain provides plenty of examples of good sites ruined by unimaginative development. On our visit we failed to find one estate, out of

[*continued on page 274*

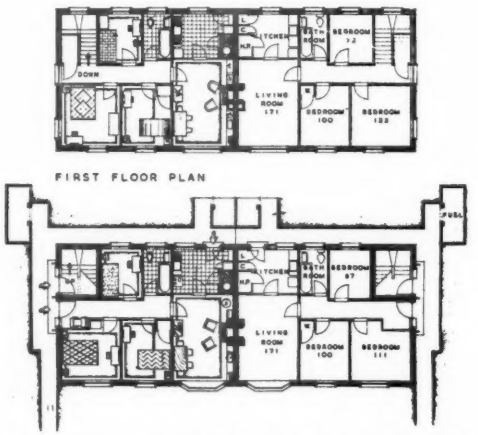


Type A2. Five apartment, 3 bedroom. Floor area, 999 sq. ft. plus 40 sq. ft. store. Rent, 20*s.* to 23*s.* according to location. Construction, either 11 in. cavity, 11 in. no-fines or 9 in. blocks. Mostly roughcast finish; some with facing brick. Designed for higher income groups

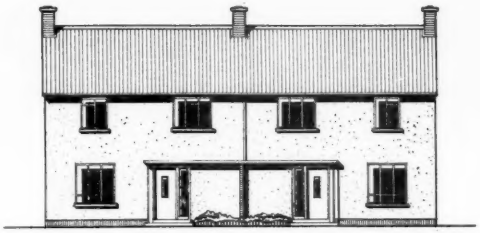


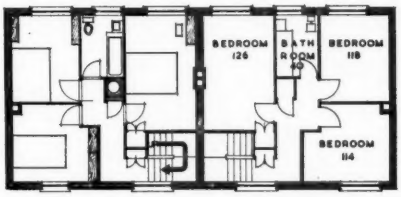
Type B. Three apartment, 2 bedroom, 2 storey flats. Floor areas, 619 sq. ft. and 696 sq. ft. plus 40 sq. ft. stores. Rent, 11*s.* to 11*s.* 6*d.* according to location. Construction, either 11 in. cavity, 11 in. no-fines (heavy aggregate), 8 in. no-fines (light aggregate) or Easiform 9 in. cavity. Finishes, roughcast, Tyrolean or facing brick

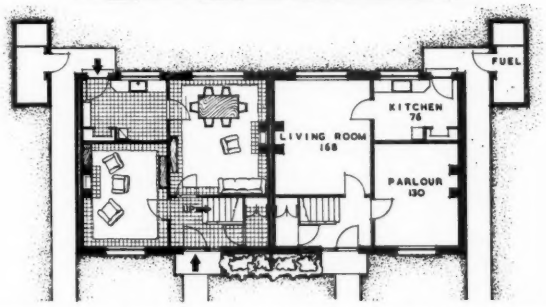
Type M. Three apartment, 2 bedroom, 3 and 4 storey flats. Floor areas, 591 sq. ft. and 607 sq. ft. plus 25 sq. ft. stores. Rent, 10*s.* 6*d.* to 11*s.* according to location. Construction, traditional 13½ in. and 11 in. cavity walls; facing brick. Note: All rents as given on these pages are exclusive of rates



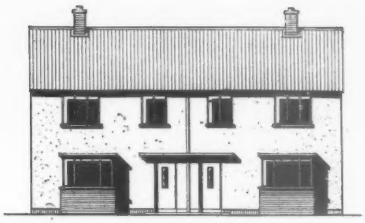
Type G. Four apartment, 3 bedroom, 2 storey flats. Floor areas, 695 sq. ft. and 819 sq. ft. plus 40 sq. ft. stores. Rent, 12*s.* to 12*s.* 6*d.* according to location. Construction, either 11 in. cavity, 11 in. no-fines (heavy aggregate), 8 in. no-fines (light aggregate) or Easiform 9 in. cavity. Finishes, roughcast, Tyrolean or facing brick

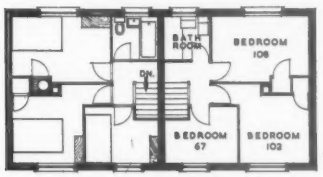


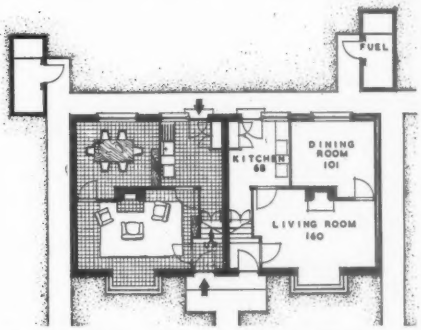




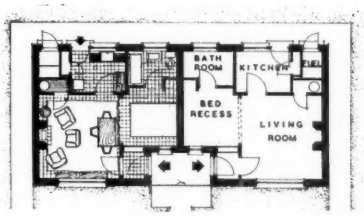
Type J. Five apartment, 3 bedroom. Floor areas, end house 967 sq. ft. plus 40 sq. ft. store, intermediate house 1,018 sq. ft. plus 32 sq. ft. store. Rent, 15*s.* to 16*s.* 6*d.* according to location. Construction, 11 in. cavity, 11 in. no-fines (heavy aggregate), 8 in. no-fines (light aggregate) or Easiform 9 in. cavity



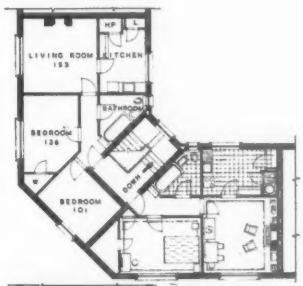


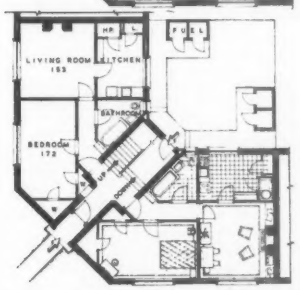


Type K. Five apartment, 3 bedroom. Floor areas, end house 753 sq. ft. plus 53 sq. ft. store, intermediate house 800 sq. ft. plus 53 sq. ft. store. Rent, 10*s.* to 13*s.* according to location. Construction, 11 in. cavity, 11 in. no-fines, 8 in. no-fines or Easiform 9 in. cavity

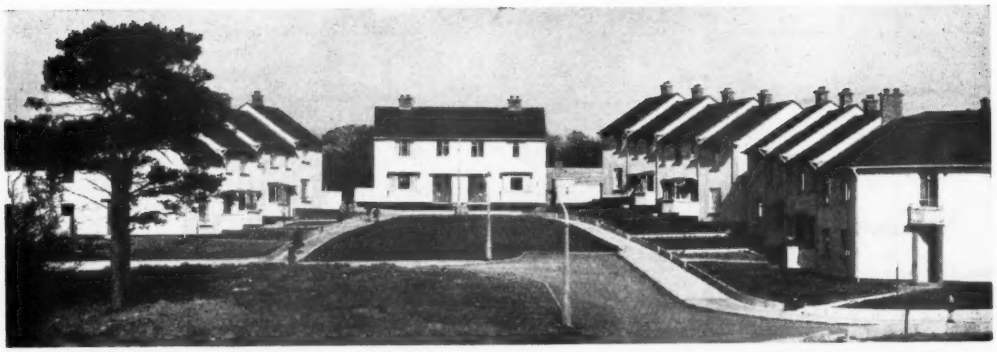


Above: Type F. Old people's dwelling. Floor area 332 sq. ft. Rent 6*s.* 6*d.* to 7*s.* according to location. Below: Type R. Four apartment, 3 bedroom rural cottage. Floor area, 710 sq. ft. plus 40 sq. ft. store. Rent, 14*s.* to 14*s.* 6*d.* according to location. Construction of both types, 11 in. cavity and 9 in. block; some Type F of 8 in. no-fines (light aggregate). Finishes, roughcast and brick





Type D. Two and 3 apartment, 1 and 2 bedroom corner flats. Floor areas, 2 apartment flats 531 sq. ft. and 513 sq. ft., the first floor of the 3 apartment flats 590 sq. ft., plus 8 sq. ft. stores. Rents, 2 bedroom, 11*s.* to 11*s.* 6*d.* according to location; 1 bedroom, 10*s.* to 10*s.* 6*d.*



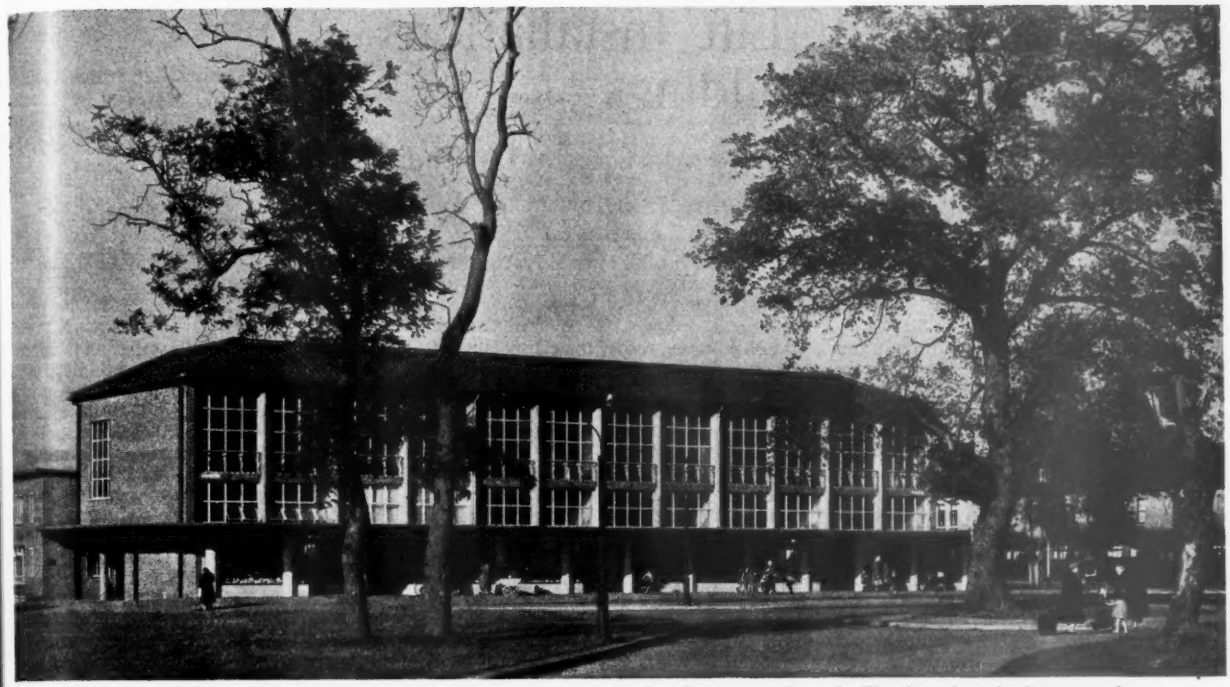
Views in and plan of Redmanville Estate at Portadown. 340 dwellings, 2 shops and housing branch office. The stepped cul-de-sac on the left consists of Type E 4 and 5 apartment houses and Type D 2 and 3 apartment flats. Construction: no-fines. In both the groups below the houses are Type E, 4 and 5 apartment. Construction: no-fines and 11 in. brick

the thirty or so we inspected, which could merit the terms dull or uninspired. Time did not allow us to visit one of the best, at Enniskillen; this occupies a peninsula and is grouped round a school and community centre; the houses are placed on the summit and along the contours with open ground falling away to superb views over water on three sides.

A feature of these schemes which may well bring tears of envy to the eyes of housing architects in Great Britain are the screen walls combined with outside fuel stores. Even under the most heavy economic pressure the Trust refused to abandon screen walls—a feature which contributed so much to the seemliness and civilised air of its estates. The effort has been well worth while. Nowhere did we get those views of untidy back gardens with lines of waving washing which are so unhappy a feature of too many housing estates in Great Britain.

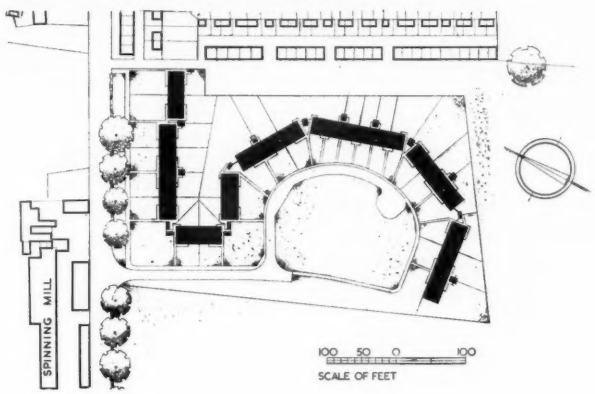
The front gardens of houses are delineated by low concrete kerbs, and tenants are encouraged to grow dwarf hedges inside them. The Trust, unlike a local authority, does not have a parks department to maintain forecourt grass, so that planting in front of the houses is the responsibility of tenants. The low height of kerbs is enough to prevent casual stepping on to grass and flower beds but does not impair the sense of unity and openness of groups as wholes. The Trust plants flowering trees in front gardens and hands them over to the care of the tenants. The groups of forest trees, mostly existing, are generally located on central grass islands.

Great use is made of footpath access to



The social centre and shops at Cregagh Estate, Belfast. The entrances to the first floor are at the ends. The shops have back courtyards

A typical scheme of 3 and 4 bedroom cottages at Annsborough. The 3 bedroom are 710 sq. ft. plus 40 sq. ft. store; rent 14*s*. Construction, traditional



houses. This not only economises in site costs but gives an air of friendliness and intimacy to groups of houses. Where there are central greens, the architects of the Trust have adopted the custom of not laying paths across them until they see the routes most used by the inhabitants. This helps to preserve naturalness in the layout as well as general tidiness.

The Trust is about to embark on a new field of activity, that of slum clearance. As yet there has been virtually no slum clearance in Northern Ireland, so that one sometimes sees the shining new estates of the Trust outside a central core of dilapidated old properties. In Belfast the problem of slum clearance is not less than that in most cities.

In the smaller towns houses may replace houses, but in Belfast there will have to be an entirely new approach to what is unavoidably high density building. It will be interesting to see how the Trust tackles this extremely difficult problem.

The Chairman of the Trust is Sir Lucius O'Brien; the General Manager, Mr. J. G. Calvert, B.Com.Soc.; the Chief Technical Officer, Mr. J. Cairncross, A.M.T.P.I. [*A*].

The Senior Architect is Mr. A. M. Wilson [*A*] and the Senior Engineer Mr. J. Garrett, A.M.I.C.E., A.M.I.Mun.E. The Senior Assistant Architects are Mr. H. G. Ashton [*A*], Mr. W. J. Davies, A.M.T.P.I. [*A*], Mr. E. W. MacDonald, A.M.T.P.I. [*A*]. The Senior Assistant Engineers are Mr. H. Collin, O.B.E., M.Eng., M.I.C.E., and Mr. G. M. Stelfox, B.Sc.(Eng.), A.C.G.I., A.M.I.C.E. The Senior Assistant Quantity Surveyors are Mr. W. M. Melville, A.R.I.C.S., and Mr. A. Urquhart, A.R.I.C.S. E. L. B.

The Planning of Lift Installations in Commercial Buildings

By P. T. Fletcher, B.Sc.(Eng.), M.I.C.E., M.I.Mech.E., M.I.E.E.

Chief Mechanical and Electrical Engineer, Ministry of Works

Read at the R.I.B.A., 13 April 1954

S. Rowland Pierce, Vice-President R.I.B.A., in the Chair

Introduction. I intend to concentrate in this lecture on the fundamental factors in the planning of a passenger lift installation for a modern commercial building. I will try to show you what these factors are and how they can be influenced by the architect in the lay-out of his building in such a way as to add to its vital and dynamic qualities. My approach is based on collected experience of lift working over some 1,300 installations, 200 of which are modern post-war equipment.

Installation Planning

The dynamic qualities of a building are those experienced and appreciated by the people who use it; the qualities which lead to a freedom of movement not only on the level but between all floors of the building; the qualities which provide ready access of the visitor to the floor and the office on which he intends to call. It is very simply established by observation that most people prefer to occupy their time in action rather than to wait, so that it is not uncommon to find persons walking upstairs and wasting time rather than waiting for a lift simply because it is not available at the moment it is required. Many people will be tolerant of relatively long walks on the level but quite intolerant of a few seconds of waiting. Our concern therefore in planning a lift installation should be that of providing a judicious combination of walking distance on the level, of lift availability for the random caller and of adequate handling capacity for populating and depopulating the building. By taking advantage of modern technical developments in control and of grouping rather than dispersing lifts it is possible—at the expense of perhaps a little more walking time on the level than in older installations—to have lift cars very much more readily available to call. A building so equipped will give a sense of a free flow of movement which I regard as dynamic quality. In planning, the problem must be reduced to the simplest possible terms—How many lifts should there be? What size should they be? What speed should they work at? Where should they be placed? In order to answer these four questions it is necessary to establish two limiting conditions: (1) The maximum rate at which people are to be moved to the upper floors of a building at the time of starting work—this has been established by long experience as the most onerous peak load duty. (2) The availability of lifts for interfloor traffic.

Before discussing the assessment of handling rate it is useful to establish an appreciation of the nature of the traffic undertaken by passenger lifts in office buildings. The calculation of maximum handling rate is simple for an escalator or the Paternoster lift. Escalators are seldom installed in office buildings, but one example operating in London with a travel rate of 90 ft. per minute and a 3-ft. stair tread can handle 6,000 persons per hour continuously. Such an installation is appropriate only to a very large building. The Paternoster lift has some vogue on the continent of Europe. The only installation in this country carries 600 persons per hour per lift, using a two-person car running at a speed of 60 ft. per minute. The continuous availability and steady rate of movement are advantageous, but the confidence of the users has yet to be acquired in this country.

The normal passenger lift is an intermittently moving device and its working is influenced largely by human factors. Handling rates and availability are therefore rather more difficult to predict than for the continuous running devices. Prediction should be based on experience with other installations, for example, special recording apparatus was connected to the control equipment of a lift in a large commercial building serving eight floors and in such a way that the number of journeys made over intervals of one, two, three and higher numbers of floors would be recorded. The results are shown in Table I, from which it can be seen that 65 per cent of the number of journeys made are concerned in running between three floors or less. The incidence of larger journeys is fairly evenly distributed, but these are much less frequent.

From Table II, the mileage and trip history of two seven-floor passenger lifts in

Table I—Incidence of Journeys of varying length—Period Three Months. Lift serving Floors G-8

Length of journey in floors	Number of journeys	Percentage of Total
1	15,418	20·8
2	14,164	19·1
3	19,128	25·8
4	4,683	6·3
5	5,628	7·6
6	6,056	8·2
7	3,497	4·7
8	5,490	7·5
	74,064	100·0

Table II—Mileage Run and number of Trips on Two Lifts—Period Three Months—Servicing Seven Floors

No. 1			No. 2		
Date	Trip	Mileage	Date	Trip	Mileage
21. 9.53	00000	00000	21. 9.53	00000	00000
28. 9.53	00000	00000	28. 9.53	5217	71
5.10.53	6234	92	5.10.53	9396	112
12.10.53	12341	184	12.10.53	14019	156
19.10.53	18735	279	19.10.53	18511	199
26.10.53	25295	376	26.10.53	23302	244
2.11.53	31504	467	2.11.53	27917	287
9.11.53	37753	560	9.11.53	32687	332
16.11.53	43999	650	16.11.53	37543	420
23.11.53	50456	742	23.11.53	42221	499
30.11.53	56646	827	30.11.53	46480	601
7.12.53	63071	917	7.12.53	50923	703
14.12.53	69516	1010	14.12.53	55415	(825)
21.12.53	76006	1101	21.12.53	59530	889
28.12.53	80238	1161	28.12.53	63609	946
		Average Daily Mileage	23·4		
		Average Daily Trips	800		

another office building show averages of 23 miles and 800 journeys per day.

Calculation of Maximum Passenger Handling Capacity

The maximum handling rate depends on several inter-related factors. To separate these it is necessary to make first approximations as to the size and speed of the lifts, then to calculate the number of lifts required and if necessary readjust the calculations in the light of interfloor availability and cost to reach a final conclusion. The factors which are first selected are lift speed, acceleration, door opening and closing time, and limit time at the end of travel. The inter-related variable factors are the car size and shape, the time to load a full car, the probable distribution of stops which will be made by a full car, the time to unload at the distribution stops. All the factors must be combined and related to the time in which the building is to be populated. In very high-grade commercial buildings the time may be 20 minutes, though by suitable selection of the number, size, and placing of lifts a good quality of service may be obtained on the basis of a 30-minute populating time.

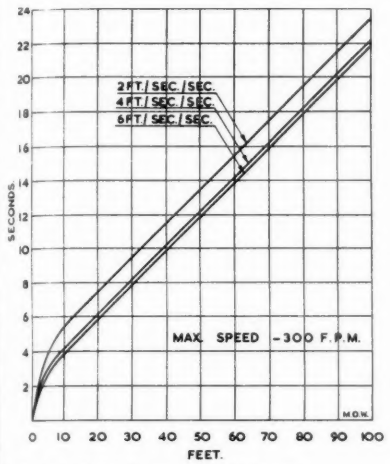


Fig. 1A. Time-distance at 300 f.p.m.

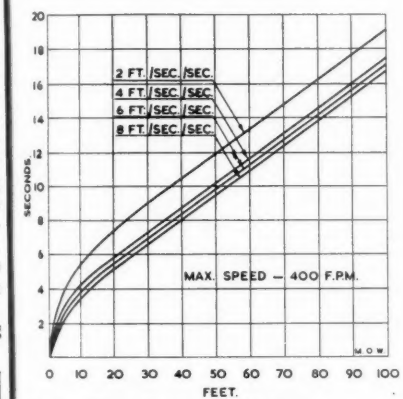


Fig. 1B. Time-distance at 400 f.p.m.

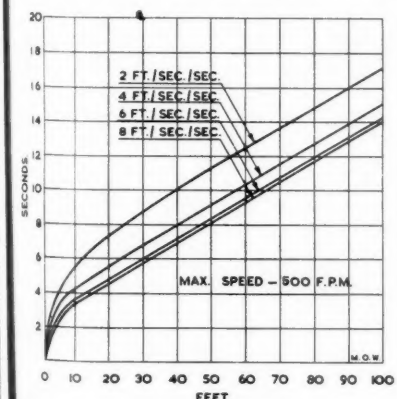


Fig. 1C. Time-distance at 500 f.p.m.

Speed. Lifts in American skyscrapers may run as fast as 1,200 ft. per minute, the upper limit being set by the rate of change of barometric pressure which can be tolerated by the human ear. Speeds recommended for British practice are set out in British Standards Institution Code of Practice C.P. 407.101 (1951), which recommends up to 600 ft. per minute for use on twelve floors and above with lower speeds for buildings with fewer floors. High speeds will only be advantageous where long journeys form a substantial part of the traffic.

Acceleration. Little information has been published about the rates of acceleration and retardation of lifts, and measurements are not easy to make. Acceleration is limited by power of the equipment, rope slip and by human comfort. High retardation is limited by the ability of the lift to floor precisely without correcting overrun. For lifts of 500 ft. per minute, accelerations between 2 and 5 ft. per second per second are relatively common and give accelerating periods of from 2 to 4 seconds to reach full speed, and retardation periods of from 3 to 5 seconds, including the time for bringing the lift correctly to its floor level. At 200 ft. per minute speed these times are approximately halved. The wide brackets of time quoted cover the various machine characteristics of empty and full lift and upward or downward travel. The normal arrangement of balance weight counterpoises the car when half full and therefore favours an empty car on its upward and a full car on its downward journey.

In recent experiments on a 500-ft. per minute lift to ascertain the physical acceptability of increasing acceleration, changes were made progressively from 4 to 8½ ft. p.s.p.s. without any passenger complaint. High rates of acceleration are likely to show to advantage in small lifts with frequent interfloor traffic.

For the purpose of calculating handling capacity transit-time curves have been prepared for speeds of 300, 400 and 500 ft. per minute for a range of accelerations and are shown in Figs. 1A, B and C. The curves for 300 and 500 ft. per minute and accelerations between 2 and 4 ft. p.s.p.s. which can be regarded as reasonably typical of current practice have been subject to experimental verification with satisfactory correlation.

Door Movement. The door opening and closing on modern lifts is usually automatic. The time required varies with manufacturers' design but usually falls between 1½ and 3 seconds per operation for 3 ft. 6 in. centre-opening sliding doors. Five seconds is a convenient design time for the complete open/close cycle.

Limit Time. The flooring devices at the top and bottom floors are set to make quite certain that the lift will in every case floor correctly without over-running to the extent of the automatic limit protection. This adds about 1 second to the normal transit time in any journey in which the lift reaches the top or bottom floor.

Car Size. The post-war Building Study No. 9, Mechanical Installations in Buildings, lists car sizes to accommodate 6, 8, 10, 15 and 20 persons with a load capacity equivalent to 150 lb. weight per person. Intermediate sizes are readily manufactured. The floor area recommended varies from 2⅛ sq. ft. per person for a 4-passenger car down to 1·9 sq. ft. per person for a 10-passenger car. For a 25-passenger car the area per person may be reduced to 1·6 sq. ft. The equivalent handling capacity for goods is based on a floor loading of 75 lb. per sq. ft. of floor area. In determining the maximum handling rate it is necessary in the first instance to assess approximately the size of lift car which will be most convenient for the building and calculate on this basis. If as a first approximation this yields an unsatisfactory number of lifts either in relation to the availability of service or structural arrangement, then the handling capacity must be recalculated at a closer approximation to the ideal.

Time to Load a Car. For satisfactory loading and unloading, lift cars should be either square or rectangular, and in the latter case with the width of the car greater than the depth. On cars handling eight passengers and upwards it is also preferable that doors should be centre opening. The deep, narrow lift or the lift with the door at one side leads to difficulty in loading and congestion for egress and should be avoided. There is no consistent data available to cover all of the factors affecting load time, but experimental observations made over a range of cars between eight and fifteen persons' capacity with centre opening doors are illustrated by the curve of Fig. 2.

Time to Unload. Fig. 3 shows curves of unloading time extrapolated from experimental results reported by Annett from the United States. These have been verified by a number of spot checks in the region of the chart appropriate to British practice.

Probable Distribution of Stops. The theoretical handling capacity is based on a hypothetical journey of a car starting full at the ground floor and distributing its passengers in a probable average manner to the upper floors. In the case of a lift

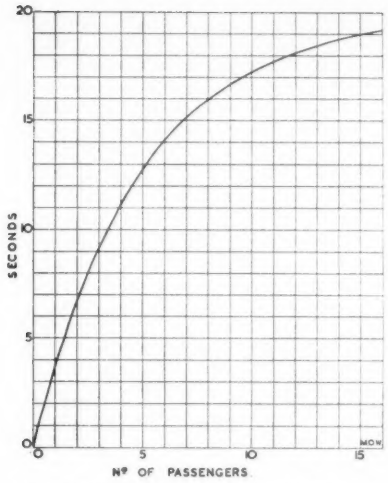


Fig. 2. Time for passengers to fill lift

loaded with P passengers for which there are S actual stops available then the probable number of stops which the lift will make, assuming that all floors have equal populations, is equal to $S - S\left(\frac{S-1}{S}\right)^P$. The assumption is made that the lift will complete the probable number of stops in sequence and then return to the ground floor. A full derivation of this probability is quoted by R. S. Phillips in *Electric Lifts*. Similar probability relationships were proposed earlier by Annett and Bassett Jones in the U.S.A. The curves of Fig. 4 have been plotted relating the lift car sizes to the actual and probable number of stops.

Example of Calculation. Phillips sets out very fully the type of analysis needed to arrive at the final selection of an installation. However, a single example will illustrate the use of the foregoing curves. Table III gives the steps in calculating the Round Trip Time. From this, the passengers handled in five minutes

$$= \frac{5 \times 60 \times 12}{114 \cdot 6} = 32 \text{ per lift.}$$

The population time is to be 30 minutes for 700—equally distributed. The lifts will be required to handle 116 persons in five minutes and the number of lifts would, on this basis, be 3·6. This is, of course, an impossible number. Repeat calculations based on 10-passenger lifts give a handling rate of 27 per five minutes per lift and a requirement of four lifts. The waiting interval would be 28 seconds. A further examination based on an 8-passenger lift gives a handling rate of 22 per five minutes per lift and a requirement of five lifts, with a waiting interval of 22 seconds. The convenient selection in this particular case would be four 10-passenger lifts.

Quality of Service. Attempts have been made to grade the quality of a lift service on the basis of combined waiting and travelling time. Phillips proposes that grading may be represented relatively by $Q = \frac{WI}{4}(2 + N)$ seconds, which represents the average standing and average journey time. WI is the waiting interval which equals the Round Trip Time divided by number of lifts. N is the number of lifts. He suggests that an excellent service is represented by Q being less than 45 seconds; good 45–55 seconds and fair 55–65 seconds. In the example quoted Q = 43 and the service would be graded as excellent.

Availability of Interfloor Traffic. It was clear from the incidence of journeys shown in Table I that much of the working life of a lift can be spent in short interfloor journeys. Availability for call for the single passenger is therefore important. Quality of service calculated according to Phillips is based on both the number of lifts and the round trip time and is therefore a measure of availability. Alternatively, for good interfloor traffic it seems desirable that there should be at least one lift for every 200 persons to be served, and for an excellent service one lift for 150 persons.

Effect of Position of Lifts. An examination of the theoretical calculation of the rate of handling of the lift shows that operations are divided into the loading time, the travelling time, the door operating time and the unloading time. In the calculation illustrated for a 12-passenger lift the time for loading and unloading was 27 per cent of the round trip time. This emphasises that the arrangement of the lifts should be such that loading and unloading are easily accomplished. Lifts should be grouped in such a way that intending passengers have no doubt as to the direction they should take and should easily be able to select the lift which would serve them first if there is more than one available. Equally, there should be no question of hesitation in leaving a lift as this obstructs other passengers trying to leave. Lifts should

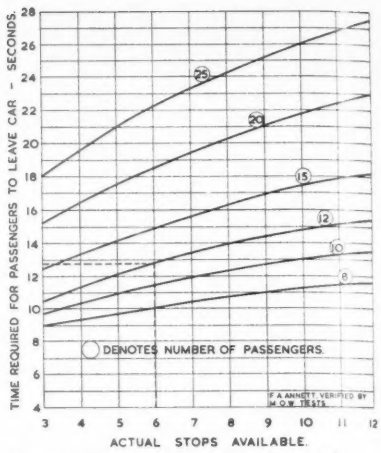

TIME REQUIRED FOR PASSENGERS TO LEAVE CAR - SECONDS.
DENOTES NUMBER OF PASSENGERS.
F.A.ANNETT VERIFIED BY M.O.W. TESTS.
ACTUAL STOPS AVAILABLE.

Fig. 3. Time for passengers to leave lift

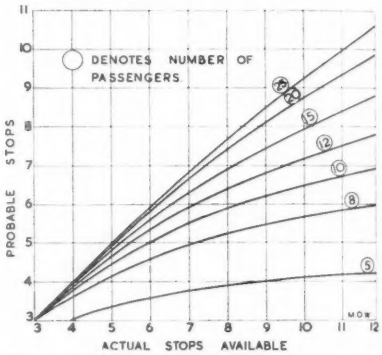


Fig. 4. Probability of stopping

therefore be centrally placed for the building or well-defined section of the building which they will serve, and they should be associated with bold and clear indication of the direction which passengers should take. Lifts serving identical floors should not ordinarily be placed on opposite sides

Table III—Calculation of Round Trip Time

Step	Particulars	Seconds
1	Assume 12 passenger lift. Car speed 500 f.p.m. Acceleration 2 f.p.s.p.s. Serving seven floors to populate with 700 in 30 minutes, uniformly distributed between floors. Rise per floor 10 ft. 9 in. Loading time for 12 passengers from curve in Fig. 2	18
2	The probable number of stops from curve Fig. 4 is six. Time interval for rise of 10 ft. 9 in. from curve Fig. 1c is 5·7 seconds. Total time for journey is 6 × 5·7	34·2
3	The time to open and close doors, seven floors × 5 seconds ..	35
4	The time for passengers to unload, from curve Fig. 3	13·4
5	The time for the down trip = the time for the non-stop journey plus the limit time. The non-stop journey = 6 × 10 ft. 9 in. = 64 ft. 6 in. Time from curve Fig. 1c = 13 seconds and the limit time 1 second	14
	Total round trip time	114·6

Table IV—**Design Data for Installation of Four Lifts—Two Fast, Two Slow**

	Fast	Slow
Passengers per car	12	8
Dimensions	6 ft. × 4 ft. 3 in. deep	5 ft. × 4 ft. 7 in. deep
Door opening	3 ft. 6 in.	3 ft. 6 in.
Maximum speed (measured) ..	480 ft. per minute	208 ft. per minute
Door Operation—Open	2·3 seconds	2·3 seconds
Shut	2·4 seconds	2·4 seconds
Travel	Ground to 8 floors	10 ft. 9 in. rise per floor
Normal peak service	Ground to 5, 6, 7, 8	Ground to 2, 3, 4

of a lobby since this leads to uncertainty of passenger as to the direction he should take. Lifts should be grouped to take advantage of the facilities of collective systems of calling, giving individual callers the benefit of the first available lift, so improving the rate of interfloor traffic.

As I have already stated, there is marked preference for people to walk on the level to a point where there is a good lift service rather than to wait for an inadequate service, and the indication from this is that the distribution throughout a building should be based on radial movement to and from a lift centre rather than to dispersed lifts. Lift lobbies should not be broken by staircases, or corridors between lifts, as these introduce cross traffic which interferes with loading and unloading. Emphasis should, in my view, be upon more small lifts rather than fewer large lifts. Not only does the selection of a larger number of lifts cover the needs of breakdown and routine servicing, but also the segregation of lifts for service duty.

Experimental Determination of Handling Capacity

Outline of Experiment. It was considered desirable in establishing working standards for certain lift installations to study the reasonableness of the use of a 30-minute populating period for an office building and to verify the basis of calculation of handling capacity by actual experiment.

An installation was selected which was capable of handling the population of the building which it served without queuing at the time of entry, and it was proposed to determine the handling rate in the normal state of operation and then to modify the service by reducing the number of lifts and the operating pattern until a state of queuing of passengers was obtained. This would then give a direct measure of the saturation rate of the installation. It was also the intention that this test should yield information on the relationship between the mean and peak rate of entry to the building. The details of the installation are shown in Table IV. It should be noted that the installation comprises two fast lifts which form the centre pair of a group of four and two slow lifts, one on each side of the pair of fast lifts. The installation is normally operated so that the fast lifts serve floors 5, 6, 7 and 8, and the slow lifts floors 2, 3 and 4. Tests were made under three conditions.

(1) The installation operating normally.
(2) The two fast lifts serving all floors—the slow lifts closed down.
(3) One fast and one slow lift operating to normal programme (e.g. half of the normal installation).

Method of Recording. Counting based on sampling over intervals of time was first attempted but found to be unsatisfactory, and a system of recording a continuous count of persons entering the building against time and the movement of the lifts and passengers carried against time was found to be essential to give a true representation. Two observers at the main doors of the building were provided with electrical push-button switches and each recorded separately by one push on his switch each person entering the building. A record and a check of the rate of entry were obtained. Further observers placed on high stools and each equipped with two pushes recorded either the arrival of a potential passenger at a lift or the movement away from the lift of a passenger who then changed his mind. The movement of each lift was automatically recorded from switches attached to the lift doors. All the information was brought together on one continuously moving time chart on a pen recorder. Details included in five of the recording channels are

1. Standing period of lifts.
2. Number of persons entering lift.
3. Stops at upper floors.
4. Passengers approaching lift—upper side of line. Passengers changing and not entering lift—lower side of line.
5. Staff entering building.

These records of the tests are shown graphically in Figs. 5A, B and C, and the abstract results from these tests are shown in Table V.

The tests were made between 8.45 a.m. and 9.15 a.m. The peak rate is in the five minutes prior to 9.10 a.m. Staff is required to sign attendance books placed on the landing adjacent to the lifts on the working floor and these books are closed at 9.15 a.m. It could therefore be expected that congestion would increase towards the closing time of the books and for this to become the critical period for the working of the lifts. The curves show a day-to-day consistency in the pattern of arrivals. The building population was 821 with 643 on floors from second to eighth ordinarily served by the lifts. An interesting fact

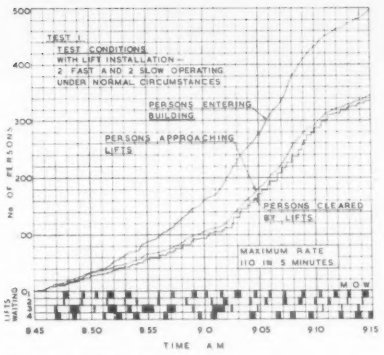


Fig. 5A. Lift tests

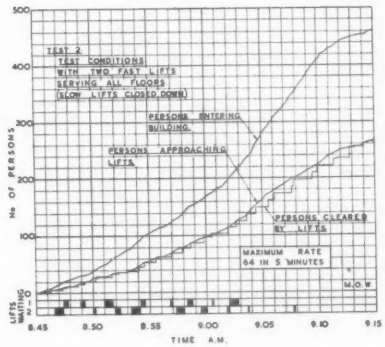


Fig. 5B. Lift tests

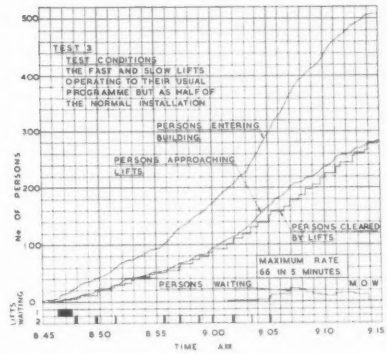


Fig. 5C. Lift tests

illustrated by these curves is that as the available lift service is reduced, so the number of persons using the lifts decreases even at a point where there is no queuing.

Analysis of Results. In comparing the results of the three tests, it is clear that there was ample lift availability in Test 1 to contend with an entry rate to the building of 500 in 30 minutes. The maximum rate achieved by the lifts was 110 in five minutes and this was 190 per cent of the average rate of handling. In Test 2, using two fast lifts serving all floors, saturation was just reached with a condition of no queuing and no lifts waiting. However, the proportion of persons using the lifts dropped noticeably. The peak rate reached was 64 per

Table V—Summary of Lift Tests

	Number entering buildings 8.45–9.15	Number carried by lifts 8.45–9.15	Maximum lift rate attained	Persons using lifts as % of those entering	% of lift capacity utilised	Floor stops as % of floors served	Number of journeys	Remarks
Test 1 (2F. 2S.)	496	349 Average per 5 minutes = 58	110 per 5 minutes Ratio to average = 1·9	70·5	43	75	68	No queue. Lifts waiting.
Test 2 (2F.)	463	263 Average per 5 minutes = 44	64 per 5 minutes = 1·45	56·8	59	56	42	No queue. No lifts waiting.
Test 3 (1F. 1S.)	508	286 Average per 5 minutes = 48	66 per 5 minutes = 1·38	56·3	65	82	46	Queuing—10 persons over period of 10 minutes. Short peak of 20 persons. Delay not in excess of 2 minutes.

five minutes, which was 145 per cent of the average rate. In Test 3, with a different operating pattern, approximately the same handling rate was achieved, but in this case there was definite queuing. The distribution of passengers over intervals of five minutes for each test is shown in Table VI. The population of the building during the test was accounted as shown in Table VII.

The maximum handling rate achieved was 110 per five minutes with an entry of 54 per cent of the population of the floors served. The rate calculated for an installation of four lifts for a service graded as excellent would be 4 × 32 or 128 per five minutes. Clearly, therefore, an installation of this high quality would still be incapable of a peak rate to ensure no queuing in a building with a greater proportion of the staff constrained to a fixed starting time.

It would be dangerous to draw general conclusions. It is demonstrated that it is essential in planning an installation to consider the method of staff time control used and the way in which this can lead to peak loading, and to decide what offset to introduce for incidence of absence and for early and late arrivals, and those so impatient as to climb stairs rather than wait for the normal service interval of the lift.

It happens in this test that the factors of peak load (185 per cent) and absence of overall demand (54 per cent) just balance to produce a 'no queuing' condition at peak.

Technical Considerations for Modern Lift Installations

Passenger and Attendant Operation. In some commercial buildings it may be desirable to have the attendance of a commissionaire or lift operator as part of the atmosphere of service associated with the building. However, when it is desirable to give the best technical service to the population of a building familiar with its lifts there is no doubt that it is obtained by passenger operation. Unfortunately, passenger operation still carries the stigma of the 'push-button' lift in which a passenger may be able to take the lift and use it at the expense of others at intervening floors and where a floor might be passed several times before a call is answered. This uncertainty is removed by 'collective control'. 'Collective control' uses the principle of storage of information so that all calls are registered by the control system and are answered floor by floor in sequence in the direction of movement of the lift (Fig. 6).

Collective Control—Definition. 'Collective control' is defined in the British Standards Code of Practice as 'A method of automatic control in which calls from the lift car and lift landings are registered and are answered by the lift car stopping in floor sequence at each lift landing from which a call has been registered until all calls have had attention. The landing calls are usually made from up/down buttons and are then answered in the direction in which the lift car is travelling'. The mechanism which carries out this storage varies with different manufacturers. The principle remains the same that when a call is registered by the lift controller a searching device operated by the main lift mechanism seeks out the call which has been registered and ensures that when the lift is running in the appropriate direction it will stop in answer to the

Table VI—Percentage Distribution of Passengers—Five-minute Intervals

Test	Time	Persons approaching lifts as a % of total passengers
1	8.45–8.50	5·64
	8.50–8.55	7·66
	8.55–9.00	13·0
	9.00–9.05	23·0
	9.05–9.10	33·6
	9.10–9.15	17·1
2	8.45–8.50	7·6
	8.50–8.55	12·92
	8.55–9.00	16·73
	9.00–9.05	19·73
	9.05–9.10	27·8
	9.10–9.15	15·22
3	8.45–8.50	3·85
	8.50–8.55	13·63
	8.55–9.00	10·12
	9.00–9.05	21·0
	9.05–9.10	30·4
	9.10–9.15	21·0

Table VII—Population Assessment during Tests

	Per cent of Total Staff
Arrival before test period	6·1
Absent—Sickness	5·7
Travelling	4·5
Leave	6·5
Arrival after test period	11·5
To floors not served by lifts	18·0
	52·3
Recorded as using lifts	42·5 = 54% of population of floors served.
	94·8
Balance—Walking to floors served by lifts	5·2
	100·0

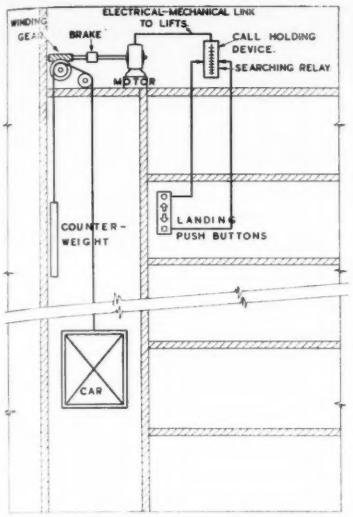


Fig. 6. Collective control principle

call. Applied to one lift it is known as a Simplex system, and improves the availability of the lift very appreciably. The terms Duplex, Triplex and Quadruplex are used to include two, three or four lifts. The control mechanism for a group of lifts will store the calls for the whole group so that the first lift out of the group moving in the desired direction will answer the call irrespective of the order in which calls have been made. When the system applies to two lifts, one lift will normally return automatically to the ground floor ready for passengers arriving at the entrance. The other car will operate as a free car to answer landing calls for interfloor traffic. If both cars finish their calls at the ground floor, the first one to arrive at the ground will be the one which will leave in response to the next landing call. The arrangement can be extended with three and four cars to any arrangement of standing and free cars to suit the type of traffic, and switching arrangements can be provided to take individual lifts out of service or to split a quadruplex group into two duplex groups. It will readily be appreciated that such a system will have no alternative but to respond to the calls that are introduced to it. There are two possible difficulties in using collective control. If one important passenger is to have prior use, and uninterrupted use during his journey, then a complicated key or switch system has to operate or an attendant has to be provided who will operate a pass switch so that the calls made by others continue in storage while the lift completes its uninterrupted journey. The other difficulty arises from the fact that the collective calling will continue to operate even if a car is full and therefore a full car could stop but be unable to accept the caller. Some very recent installations have an automatic pass device so that when the car is carrying its full weight a call which it cannot answer is automatically transferred to the next lift or the next journey.

It has been well established that the extra cost of installation and of maintenance of collective control passenger drive lifts is very quickly offset by providing a service at least as good as with attendant operation, but without the cost of an attendant. In large buildings where a group of lifts may be heavily loaded at starting time, it is useful to have one attendant who will be concerned with directing passengers into the lifts. Such a 'despatcher' should understand the working of the installation and be able quickly to read the indication given by the lift directions signals and advise intending passengers of the next lift which is to come. He would also see that only sufficient passengers are directed to each lift to ensure a proper loading.

The passenger operates the lift by pressing a button on a car station or panel numbered with the floor to which he wishes to proceed. Each succeeding passenger registers his own call and a delay is introduced into the sequence to allow a normal flow of passengers to enter. About six seconds after the last call, the lift doors close and the lift starts. A push is usually provided on the car station to hold the car doors open, and doors are provided with safety edges arranged so that contact with the safety edge causes the door to retract.

Improvement of Service. While detailed statistics demonstrating the advantage of collective control passenger operation over attendant operation are not published, it can be recorded that in one installation recently surveyed identical lifts from a group of four were arranged so that two operated as Duplex passenger control and two operated with attendants. The lifts were 16-passenger, 500 ft. per minute serving ten floors. The Duplex lifts handled 39 passengers per five minutes for each lift. The attendant-operated lifts handled 33 passengers per lift. The Duplex lifts—25 trips for 188 passengers. The attendant-operated lifts—30 trips for 159 passengers. It has been reported of another installation that the introduction of Triplex passenger control to three of a group of four lifts has enabled the fourth to be shut down, a better service to be afforded and attendants to be dispensed with.

The technical facilities are used to best advantage by grouping lifts together and using multiplex control. This ensures that the lift nearest and next available takes on the job of work and the burden of interfloor traffic is shared between all lifts. It is premature to state design factors for relative effectiveness of collective control and attendant control installations—though the probability is that with collective control a 20 per cent better handling capacity is available than with attendant operation. Certainly the interfloor availability is improved.

Education of Users. Experience shows that it takes several months for the population of a building to become accustomed to a passenger drive collective control installation. It is quite necessary to provide the lift with clear and simple indication on the car

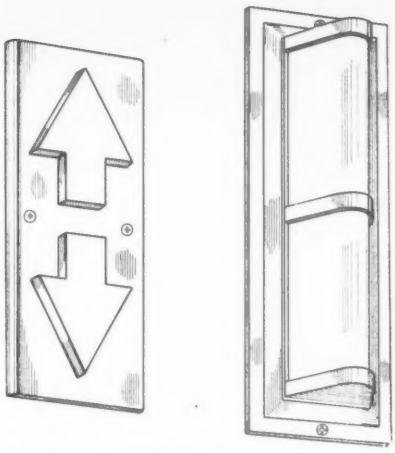


Fig. 7. Direction lanterns

control station on the landing and inside the car so that buttons will be operated correctly and the passenger will know the direction of run and the level reached. There is no standardisation in signals and markings, and standardisation is desirable. I appeal to architects, since individual architects do influence the design of push-button panels, indicator lights, lanterns and other details with the lift car (Fig. 7). Even a uniform use of Red for Up and Green for Down lanterns and arrows would be a step forward to standardisation. The familiarisation with new installations has been helped by providing the lift users with very simple pocket-size direction cards explaining how the lift is operated. Some manufacturers are now producing leaflets for the same reason. Apart from the using of explanatory leaflets or cards, the starting of a new installation is facilitated if for the first few weeks 'despatchers' are employed at the ground floor in critical periods to direct passengers to the lifts.

Size and Position of Motor Rooms. The Post-War Building Studies No. 9, Mechanical Installations, gives guidance on the size of machine rooms and lift wells. This information serves for preliminary purposes but must be confirmed by the selected manufacturer. I would like particularly to stress the question of the positioning of the lift motor room. The provision of overhead motor rooms is often a difficulty since the protrusion may destroy the line of the top of the building and architects may insist that the lift motor room should be placed in the basement. There is no engineering difficulty in placing the motor room in the basement, but there are consequent serious disadvantages both to arrangements within the building and in the future cost to the client. The total load on the structure of the building will be greater when the lift motor is in the basement than when it is on the roof. This arises from the double sheave and double rope arrangement needed for the basement motor and means that the lift shaft must accommodate an extra set of ropes. This may reduce the space

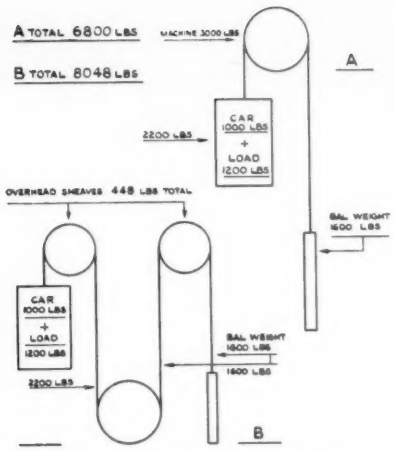


Fig. 8. Motor room at top or at bottom

available for the lift car and limit its size. The installation with the basement motor will require very nearly three times the amount of lift rope, which is an expendable item and which will suffer extra wear due to repeated flexing around sheaves and pulleys. Therefore wherever possible the lift motor room should be above the highest floor which has to be served (Fig. 8).

Lift cars and guides are designed to reduce the clearances around lift cars and the introduction of magnetic or other forms of inductive devices which avoid the contact of switch arms or roller devices between the lift car and special ramps in the well has made a big contribution to simplifying the work in the lift well and the subsequent accuracy of control in the lift car.

Safety. There is no statutory legislation to cover the installation of lifts in this country except where in factories the Factories Act 1937 applies. Most other countries have some form of national or local legislation. However, the lack of legislation has certainly not led us to a low standard of lift installation. In many respects our installations are more conservative in their design and in their interpretation of safety requirements than in countries where there is legislation. This is a tribute both to our manufacturers and our users and insurance companies who influence British Standards, Codes of Practice and specifications.

I do not propose to describe the technical arrangements for safety. These are relatively complex but well proven and include lock mechanisms with mechanical and electrical interlocking, and safety gear to restrain the lift should ropes break.

It is usual practice on lifts in this country to provide both car and landing doors. It is not uncommon practice on the continent of Europe to find lift cars flush-fitted to the well and the door, very often a hinged door, on the landing only. There is no doubt that this arrangement can substantially speed up traffic, but I have no information with regard to the relative safety of lifts either with or without doors on their cars. Where sliding doors are used it is clear that these should be free of pockets or edges which can trap fingers. This is particularly a point to watch in the design of doors which include vision panels.

Preference varies considerably with regard to the fitting of vision panels. The modern high-speed lift of smooth acceleration introduces little sense of movement and some users prefer to have a small window in the door in such a way that the movement of the lift can be sensed visually. A vision panel, when lined up with the vision panel in an outer door, will also be a means of visual communication in the event of door mechanism failing to operate. Other users prefer in the interests of general safety to avoid vision panels, which are incidentally quite expensive in metal-cladded insulated doors.

Cases have been reported of panic or illness in lift cars due to claustrophobia during breakdown. Experience shows that the presence of a telephone in the lift car which will enable passengers to communicate with someone outside the lift materially helps to remove this difficulty. There is no technical problem in providing telephone communication, but there must always be a point outside the lift to which connection can be assured. Normally a lift is provided with an emergency stop switch and an alarm switch or push button so that passengers can stop the lift and also ring a bell within the building to call help.

Maintenance of Lifts. The electric lift is a relatively complicated machine involving both heavy mechanical engineering and control systems which often incorporate electronic devices. It is therefore important for good service and safety that the equipment should be regularly and efficiently maintained and also critically inspected at regular intervals. Although we have no legislation governing the use of lifts it will be apparent to any owner that a lift introduces a potential liability for third-party claim in the event of accident and he would normally effect insurance for his own protection. An accident involving several passengers might result in claims of some thousands of pounds for compensation. Such insurance which can be extended beyond third-party risk to include the insurance of the mechanism against abnormal breakdown is effected by a number of well-known insurance companies who maintain a high-grade engineering inspection service. These insurance companies will undertake the regular inspection of the installation and will report on the state of the installation and advise on the work necessary to keep it in a safe and satisfactory working condition. Most lift manufacturers will themselves undertake maintenance agreements which will ensure the routine lubrication and adjustment of all of the equipment and replacements of ropes, bearings and other wearing parts. There are also a number of smaller organisations which specialise in lift maintenance work. With the advanced technical equipment installed in lifts of the collective control type there is much to commend the use of the routine maintenance service afforded by

Fig. 9. The Paternoster lift

the original manufacturer who will, if desired, not only keep the lift in working order but substantially up to date.

Experience with complex control equipment suggests that this is not as serious a maintenance burden as might be expected, nor does it appear to introduce any abnormal risk of uncertainty into the service. Perhaps the most unsatisfactory part of the automatic installations at this stage is door-operating gear. While this varies from one manufacturer to another (and it would not be appropriate here to comment relatively on different types) door-operating mechanism does provide as many calls for emergency service as other parts of the installation. Door mechanisms have to meet a very exacting requirement and I do not think that they are yet entirely meeting it. Perhaps the ideal solution is to have no doors at all and to use the Paternoster type of lift (Fig. 9).

Maintenance and insurance costs cannot be specified in detail for all sizes and speeds of lift. As a general guide, comprehensive maintenance of a 16-passenger, eight-floor lift, including replacement of all wearing parts, will be about £180 per annum, the day-to-day service alone costing about £100 per annum. Comprehensive insurance, including £25,000 third-party risk and regular inspection, would cost about £25 per annum.

Cost of Passenger Lifts. It is impossible in a lecture of this type to quote basic prices for lift installations, but it will be of interest to indicate the effect of the car capacity and speed on the price for a typical installation of eight floors. The cost of a large number of post-war installations with collective control has been corrected for price variations and other variable factors, and the curves of Fig. 10 have been derived which show a unit cost per floor and per passenger for variable voltage lifts of 300 ft. per minute and 500 ft. per minute on an eight-floor installation. They afford some guidance in the selection of lifts where the alternative combinations of size and number must be considered against capital cost. A change of type of equipment is involved between 300 and 500 ft. per

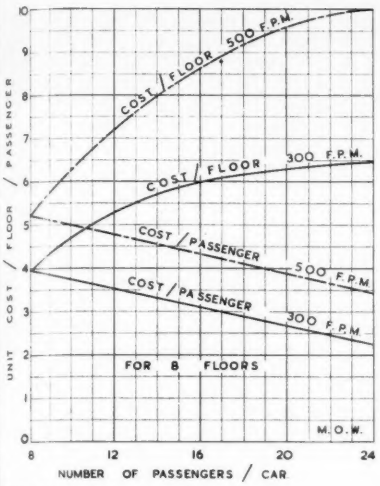

UNIT COST / FLOOR / PASSENGER
COST / FLOOR 500 F.P.M.
COST / FLOOR 300 F.P.M.
COST / PASSENGER 500 F.P.M.
COST / PASSENGER 300 F.P.M.
FOR 8 FLOORS
M.O.W.
NUMBER OF PASSENGERS / CAR

Fig. 10. Variation of cost

minute and it is therefore inadvisable to interpolate between curves.

Conclusion

I have endeavoured to collect the results of some direct experimental work to help in the appreciation and solution of the problem of assessing the size of lift installations in commercial buildings and to emphasise the advantage to be achieved by using modern technical methods provided that the building is planned with due regard to their potential merit. I trust that the work may prove of some interest and use outside its departmental application.

Acknowledgments. I should like to acknowledge the permission of Ministry of Works to publish this information and also to acknowledge the detail work undertaken by Mr. R. H. Lane, Lift Engineer, and the Technical Servicing Section of the Ministry's Engineering Division and the M.O.W. Engineering Test Branch who carried out the tests. My thanks are also due to Messrs. Waygood Otis Limited for their assistance and interest in conjunction with the tests made on acceleration and to Messrs. J. and E. Hall for permission to publish a photograph of the Paternoster lift.

DISCUSSION

Mr. R. N. Wakelin [*F*]: It gives me great pleasure to propose a vote of thanks to Mr. Fletcher for his very interesting paper. Indeed, having listened to it I feel that if Mr. Fletcher had told us a little more about the works I might have been in a position to tell Mr. Atkinson and his fellow manufacturers what I want in the way of a lift, instead of listening to their demands, which I think are sometimes excessive, for over-runs, clearances, and so forth.

On the question of the lift house, Mr. Fletcher gave us some very strong arguments in favour of placing it at the top and not at the bottom, but he dismissed the lift house by saying that it was a pimple on the top of the building. In the case of two lifts that I have in mind, the lift house rises 24 ft. above the top floor of the building and is 20 ft. long by 18 ft. wide. That is no pimple. The total cost of the room in question worked out at about £2,000. If a little research were carried out, it might be possible to design a motor and lifting gear which would not require so large a space.

With regard to the increase in cost caused by an increase in speed, I do not know whether my figures agree with Mr. Fletcher's but on the two lifts to which I have referred the increase in cost when the speed was increased from 200 ft. per minute to 300 ft. per minute amounted for the two lifts to £1,800.

I have mentioned that point because I think it is rather important in considering what kind of lift to install in order to serve a certain population. Some buildings, of course, have a more or less static population. The people come in in the morning and stay there all day and go away in the evening, and there is very little movement during the day. I should like to have heard a little more about the other type of building, where people have to be dealt with during the day. I do not know what the answer is—whether it is an escalator or using the lift for the upper floors only, or making people walk.

Mr. L. S. Atkinson (Chief Engineer of Waygood-Otis, Ltd.) in seconding the vote of thanks, said: As one who has been in the lift industry for many years and incidentally has made many calculations on the lines of those about which we have heard this evening, I have been particularly interested to hear of the experiments and researches which have been made on various buildings in connection with the all-important subject of planning, as we call it. The task of the lift designer today is not to raise the rate of speed and stop with accuracy at floor level, but to obtain the maximum passenger-carrying capacity per square foot of lift area. We arrive at a high ratio of carrying capacity to floor area by having as high a speed as the building permits and also by the mechanical engineer and the electrical engineer combining to get as high a rate of acceleration and retardation as is consonant with human comfort, so that floor-to-floor stops shall occupy a minimum amount of time. The door movement times should be as short as possible, within the limits of safety, and there should be efficient interconnecting of the landing buttons with the car buttons of each lift, so that the maximum number of passengers will be carried per trip. That is the great task of the lift engineer today.

We have just read in the papers of two lifts that have been put into service at Hampstead Tube station. The car speed there is 800 ft. per minute, which is quite suitable and in fact desirable for that rise, which is, I think, 185 ft., but there are only two stops, at top and bottom, and I cannot envisage—at least, not in my lifetime—buildings in England which will justify that speed, particularly with a floor-to-floor service.

Mr. Fletcher has referred to the red and green arrows or direction signals and has made a plea for standardisation. I should like to make a plea for the red signal being used for 'down' and the green signal for 'up', because that is easy to remember, as it is dangerous to fall down and red is the colour that indicates danger.

Mr. Lance Wright [*A*]: I should be glad if Mr. Fletcher could say a word or two on the question of the Paternoster lift, particularly on the question of its safety and whether insurance companies favour it or not. I should also like to have some indication of the relative cost of the continuous cabs and of their maintenance.

Mr. R. S. Phillips (G.P.O.): Mr. Fletcher showed on the screen the results of some tests that he had carried out on lifts travelling between various floors of an 8-floor building, and he showed from his figures that about 50 or 60 per cent of the journeys were made between points with only one or two floors between these points. He deduced from that the importance of the number of journeys being made between these points. Surely this applied only to the particular building that Mr. Fletcher was studying. There are many buildings where the conditions in question would not apply, and it does not seem right to draw conclusions from information obtained from this particular building.

Mr. Fletcher built up a round trip time in the usual way, taking account of the opening of doors, travelling time, acceleration, and so on, but I do not think he made any reference to the lift attendant. The lift attendant is, of course, one of the most variable factors of all. You can set your times by whether you have a good or a bad lift attendant. This is a very important item. Later on I think Mr. Fletcher was so bold as to say that if you want a good lift service you must have an automatic control lift. I do not know that that is quite right. My own view is that if you want a first-class lift service you must have a first-class attendant. The attendant can make or break a lift service. Mr. Fletcher went on to say that in the case of an electrically controlled lift one of the passengers becomes the attendant. Surely a passenger is not nearly so good an attendant as a trained lift attendant.

Later on Mr. Fletcher showed the usual sort of diagram that we put before architects to convince them that it is better for us to have our lift machine rooms at the top rather than below, and his arguments were quite correct and sound, but, of course, he chose a weight for his lift machine that gave him the result he wanted. His lift machine could, of course, be any value between very wide limits. Whether the location of the lift machine at the top or at the bottom is better from the point of view of the load on the building depends entirely on the relative values of the lift

machine, etc. It is quite true that in the majority of cases there is less load on the overhead structure when the machine is at the top, but it is actually a factor of the relative weights.

Mr. John Bickerdike [*A*]: I should like to hear any views which Mr. Fletcher may have on the arrangement of large numbers of lifts grouped together. What he thinks about the lay-out for easy access for passengers, etc. Does he favour having the lifts on either side of a walk-way or feeding off a walk-way with a cul-de-sac?

Mr. W. A. Dixie (Chief Engineer, Express Lift Company): The commercial aspect of the matter of increased speed is the extra cost, and the increase of speeds in America stopped when the rather futile competition in the height of skyscraper buildings stopped.

In the matter of acceleration, it is a fact that the human body can stand any acceleration a lift engineer is likely to give it, but what the human body cannot stand is the rate of change of acceleration. A slow speed lift with a slow rate of acceleration may be most objectionable to ride in, simply because the rate of change of acceleration, starting and stopping and *vice versa*, is too high.

Mr. Fletcher says that he is in favour of a number of small lifts for some very good and obvious reasons, but, apart from the extra cost of these lifts, there is another factor, namely, the ratio of the cars to the amount of building space, and that is rather in favour of the large lifts. Therefore, as in all these engineering matters, it is a question of compromise.

Mr. C. G. Morley (Chief Engineer's Department, L.C.C.): I am very interested in Table No. I, giving the relative travel of passengers to different floor levels. I should like to know the availability of staircases, as I feel that that has a marked bearing on the number of passengers who travel short distances in lifts.

With regard to the suggestion that the motor room should be at the top, which I entirely support, I feel that it should also be borne in mind that putting the motor room at the bottom does not in any large measure reduce the over-travel distance required, since the over-travel distance absorbed is from the top landing level to the under side of the cab.

Mr. Geoffrey Twibill [*A*]: Mr. Fletcher pointed out rather delightfully that the traffic in the building was of dynamic quality, and that is the quality that we tend to lose. Buildings in certain parts of the world have shown us that the traffic is the life-blood of the building, and that can be sometimes visual. We have talked about the buildings on the roof; whether they be temples or palaces hardly matters. In those palaces is the source of this dynamism. The building itself, peculiarly enough, is usually quite static. We can approach this matter in another way and give the building a little vitality through making something of the lift house, and that has become quite a common practice in some countries, particularly in Scandinavia. I have in mind instances in Stockholm and Copenhagen, where the lift house has become a mass of colour and turning wheels and blue fires at night. It is something most vital and interesting. In Copenhagen the lifts have been installed in glass shafts and can be seen going up and down at night with coloured lights, and as the door opens on a little glass access way to the adjoining blocks a light comes on and one can see the passengers dashing into the building. That gives a feeling of vitality and dynamic quality to the building, and I think it brightens things up a great deal. I can think of very few buildings in this country where the dynamic quality has become visual, and perhaps we ought to give some thought to that aspect.

With regard to the Paternoster lift, I had the privilege of working for a short time in a building at The Hague completed only last year where there is the latest edition of the Paternoster lift. It was thought at first that it might not be quite safe, and ample provision was made for the safety of this installation. In fact, it was so safe that, when people arrived in their masses in the morning and the lift was moving fairly fast, if someone caught his umbrella in the safety catch the lift would stop so quickly and firmly that there was no movement, and the watchman for the building would have to come and insert a key in every floor before the machine would start to move again, thereby ensuring that nobody was stuck.

Mr. S. Waters: When Mr. Fletcher calculated his round trip time he did not allow for the stops in the morning and evening rush, because he took the downward trip without stops, thereby depriving passengers of the chance of travelling downwards, but upwards he made a passenger stop perhaps three or four times before he got to the floor where he wanted to get out. If some allowance could be made for stops, the number of lifts that Mr. Fletcher obtained by his calculation would have been as the number which he said was required to give normal service between floors throughout the day, and those two figures could have been made to tally almost exactly by some adjustment of the number of stops allowed in the rush hours.

Mr. Fletcher: I cannot give any information about the relative cost or cost of maintenance of the Paternoster lift. In this country the experience of the lift is at the moment extremely limited. I understand that the insurance companies do not take any serious view of this type of lift.

With regard to the point Mr. Phillips made about the distribution of stops, I quoted an example merely for information and I derived no particular design conclusions from the number of journeys made in the installation in question, other than the warning that there is need for detailed consideration of each individual building.

I agree that the lift attendant can make or break a lift service, and when one has to deal with a large number of lifts the risk of breaking a lift service and of its reputation being ruined by one or two troublesome attendants is such that I feel that it alone can be a justification for passenger operation.

In answer to Mr. Bickerdike, I prefer if possible to use a group of lifts, which should not be too large in number, on one side of a lobby with no break between them, unless the planning and traffic of the building indicate that, say, two or three lifts out of a group should serve one group of floors and two or three should serve another group of floors; in that case the lifts can reasonably be placed on either side of a lobby. Certainly if there is a small group of lifts they should not be broken either by a central stairway or by a central corridor where that would lead to cross traffic and a measure of confusion. We have observed that in a number of installations and it certainly reduces the effectiveness of the installation. I think that there should be planning based on general radial flow of movement and that one should avoid having one lift in one corner and one in another or groups of pairs.

I agree with Mr. Dixie that the aspect of commercial cost is a very significant one and it stands out in all attempts to evaluate an installation; it is a continual juggling between cost and the number of lifts in a given floor area, and so on. From the user's point of view it is difficult to approach the problem in absolute terms.

With regard to stairs, mentioned by Mr. Morley, I gave in Table I an example of a lift from a group of lifts in which I can say that the stairs had no reasonable relationship at all to the lifts, and I should be satisfied that the bulk of the interfloor traffic was carried by the lifts themselves.

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Practice Notes

Edited by Charles Woodward [*A*]

IN PARLIAMENT. **Building Bye-laws. (Uniformity.)** Asked to what extent uniformity has been obtained as regards the building bye-laws of local authorities, and what special circumstances there were in the cases of three out of 126 local authorities in Lancashire which caused him to agree to a greater height than 7 ft. 6 in. for first-floor rooms, the Minister of Housing and Local Government replied:—Uniformity has been obtained to a very large extent, and I am grateful to local authorities for their co-operation. The special circumstances about which my hon. Friend inquires are smoke-laden humid atmosphere, low sunshine record, and, in two cases, high density. The variation is in respect of ground-floor, not first-floor rooms.

Asked further whether he was satisfied that every possible consideration is given in his Department to appeals for a greater height made on the grounds of health by certain local authorities, the Minister replied:—Yes, Sir. As my hon. Friend suggests, we have tried to get the maximum of uniformity without disregarding the long tradition of occasional non-uniformity. (13 April 1954.)

Building Bye-laws. Asked the number of local authorities which are charged with the duty of preparing building bye-laws affecting the minimum height of rooms; how many have already submitted them for approval; and in how many cases his approval has been given, or has been withheld, the Minister of Housing and Local Government replied:—1,536 local authorities had to revise their bye-laws. 1,309 have new bye-laws confirmed or about to be confirmed; discussions are continuing with 14, and 13 have not submitted drafts.

Nearly all the authorities have adopted the new model bye-law prescribing 7 ft. 6 in. as the minimum height of rooms. I refused approval in about 100 cases to a proposal to insist on a greater height, and in almost all of these the model provision has now been adopted. (13 April 1954.)

Historic Buildings. Asked what action he is taking to find uses for important historic buildings which are without a use and in danger of demolition or decay, the Minister of Works replied:—On the recommendation of the Historic Buildings Council for England, I have adopted a suggestion made by the Noble Lord, Lord Methuen, in another place, and set up an Historic Buildings Bureau. This Bureau will assist a Committee of the Historic Buildings Council to find uses for these historic buildings. My honourable Friend the Member for Westmorland is the Chairman of the Committee. The Bureau will keep the Committee informed of historic houses for which a new use is required and of persons who might occupy or purchase such houses. Anyone looking for accommodation of a kind which could be provided by an historic house should write to the Director of the Historic Buildings Bureau at Romney House, Marsham Street, S.W.1. (14 April 1954.)

MINISTRY OF HOUSING AND LOCAL GOVERNMENT. Housing Act 1949, Part II. Grants for Improving and Converting Houses. Steps to encourage owners to modernise and make better use of houses by improvement and conversion with the aid of grants under the Housing Act 1949 are explained in a circular to local housing authorities in England and Wales by Mr. Harold Macmillan, Minister of Housing and Local Government. (Circular 36/54 dated 20 April, obtainable at H.M. Stationery Office, price 3*d*.)

The circular says that the Housing Repairs and Rents Bill makes a number of provisions designed to encourage many more applications for grants than have so far been attracted, and that if and when the Bill becomes law local authorities will be sent another circular explaining its provisions. Meanwhile, the circular stresses a number of points on which existing law and procedure (which were explained in a circular issued in September 1949) seem to have been imperfectly understood, or too rigidly interpreted or applied.

These points include: (1) Revision of the requirements a dwelling must satisfy after improvement to attract a grant. The purpose is to exclude or modify requirements which experience has shown to be unreasonable as absolute conditions of grant. (2) From 21 April this year the minimum estimated cost of improving or converting a dwelling before it can qualify for grant will be reduced from £150 to £100. (3) Reasonable expenditure on the professional fees of architects, surveyors and engineers may now be included in the costs which rank for grant. (4) Local authorities are told that schemes of improvement or conversion need no longer be reckoned as a part of their approved programme of new house building. (5) Local authorities will no longer have to refer private owners' applications for grant to the Ministry but may themselves give approval.

In his circular Mr. Macmillan says that the current requirements a dwelling must satisfy after improvement if a grant is to be earned seem to have severely discouraged applications for grant and so resulted in many good, sound houses being left to become obsolescent instead of being modernised.

These requirements were recommended in a report published in 1946 of the Standards of Fitness Sub-Committee of the Central Housing Advisory Committee. The report made it clear that the requirements represented a standard which would bear comparison with what is regarded as proper in a new dwelling, and that they needed to be applied in each case with due regard to the physical limitations of the building concerned, and to what public utility services were reasonably available to it. The Minister has always had power to waive one or more of the specified requirements in individual cases.

'It does not seem to have been sufficiently understood that the recommended requirements were always intended to be applied subject to the reservations mentioned above', says the circular. 'Many local authorities have been slow to invoke the Minister's power of waiver. Many owners have not appreciated its existence, and have been discouraged by a list of requirements, some of which they believe it to be impossible to satisfy.

'The Minister has decided, therefore, that it would be helpful to local authorities, owners, and indeed all concerned, if the requirements were revised to exclude or modify those which it would be unreasonable to make an absolute condition of grant.'

In revising the requirements the Minister has taken into account representations he has received from the Royal Institute of British Architects and the Royal Institution of Chartered Surveyors, and the views of the Central Housing Advisory Committee and of the Associations of Local Authorities.

The revised requirements are that the dwelling must, after improvement or conversion: (1) be in a good state of repair and substantially free from damp; (2) have each room properly lighted and ventilated; (3) have an adequate supply of wholesome water laid on inside the dwelling; (4) be provided with efficient and adequate means of supplying hot water for domestic purposes; (5) have an internal or otherwise readily accessible water closet; (6) have a fixed bath (or shower) preferably in a separate room; (7) be provided with a sink or sinks and with suitable arrangements for the disposal of waste water; (8) have a proper drainage system; (9) be provided in each room with adequate points for gas or electric lighting (where reasonably available); (10) be provided with adequate facilities for heating; (11) have satisfactory facilities for storing, preparing and cooking food; (12) have proper provision for the storage of fuel (where required).

These revised requirements, says the Minister, should enable local authorities to deal with the majority of applications without needing to ask for a waiver, although he will always be willing to consider the exceptional case in which a waiver is thought to be needed.

Mr. Macmillan reminds local authorities that the circular issued in 1949 emphasised that the financial resources of a private owner were wholly irrelevant to the question whether or not an improvement grant should be made. Representations have been made to him that many applications have been rejected out of hand because the local authority concerned were reluctant in principle to make grants, particularly where they had any reason to believe that the applicant was financially able to do the work without one.

The power the Housing Act of 1949 gave local authorities to make grants is permissive and not mandatory, but, the circular says, 'it was clearly the intention of Parliament that grants should be available

to private owners willing to comply with the requirements, and the Minister must say quite plainly that a refusal to entertain any application, or the imposition of a means test which has no sanction in the Act, can only lay a local authority open to increasing criticism from their constituents as the provisions of the grants are made more widely known, and owners are encouraged to apply for them, by the publicity which the Minister intends to give them'.

Referring to his decision to revise the limits of expenditure ranking for grant, the Minister says that local authorities have produced evidence that the existing regulations (which exclude from grant schemes of improvement or conversion which cost less than £150 a dwelling) have been disqualifying useful projects which in all other respects comply fully with the conditions. He has therefore made amending regulations which come into force on 21 April this year reducing the minimum figure to £100, and he asks local authorities to make the alteration known to prospective applicants.

In view of the provision made in the Housing Repairs and Rents Bill to remove altogether the upper limit of £800 laid down in the Act of 1949, the Minister says he is willing on the application of a local authority to consider using, now, his power under that Act to waive the upper limit for any individual scheme, although the grant will not normally exceed £400.

Lists of architects and surveyors practising in and around the area who will be prepared to advise on works of improvement and conversion are shortly to be sent to each local authority by the professional organisations for the benefit of owners applying for or enquiring about grants.

Mr. Macmillan says he will be glad to see more local authorities setting the private landlords an example by demonstrating what can be done to modernise existing houses by well-conceived schemes of improvement or conversion, and he will welcome also their making a direct approach to owners of suitable houses, who might be induced by an invitation from their local council to think about improving or converting their property.

National Parks and Access to the Countryside Act 1949. The Minister of Housing and Local Government has now made Regulations under the Act in respect of Exchequer grants to local authorities where they exercise their powers under that Act and the Town and Country Planning Act 1947. Compensation is payable where discontinuance or modification of the use of land is required, and the alteration or removal of buildings, in respect of National Parks land or in areas of outstanding natural beauty.

The Regulations (S.I. 1954 No. 415, The National Parks and Access to the Countryside (Grants) Regulations 1954) are obtainable at H.M. Stationery Office, price 3*d*.

The Ministry have issued an explanatory memorandum in connection with the Regulations which is obtainable at H.M. Stationery Office, price 6*d*. The appendices contain a list of items which may be included in the cost of acquisition and compensation, and these include fees of the claimant's surveyor or for professional advice (other than legal advice) reasonably and properly payable by the acquiring authority or the local planning authority as the case may be.

Temporary Houses. Fire Protection. Circular 37/54, dated 29 April, addressed to housing authorities in England, calls attention to fires in temporary houses caused by electrical installations, and suggests particular attention to the following matters, and an inspection made as soon as possible:—

(*a*) *Bakelite Moulded Components in Main Control Panel.* There have been reports of persistent arcing or permanent 'tracking', particularly on the fuse blocks. These usually follow repeated deposits of carbon, etc., on the Bakelite as a result of the 'blowing' of fuses or intermittent arcing between conductors. Where it is found that the non-hygroscopic surface of the bakelite has been destroyed the component should be renewed. If renewal of the fuse block is necessary it is recommended that ceramic-type fuse-holders be substituted. This may necessitate a new mounting-bar and alterations to, or the renewal of, the insulating 'cut-out' surrounding the fuses.

(*b*) *Overheating of Fuse Contacts.* One type of fuse-holder incorporates small spiral springs to provide pressure to the contact surfaces. Overheating of the fuse renders the springs less effective and may cause serious overheating. Defective fuse-holders should be renewed.

(*c*) *Fuse Terminal Connections.* Overheating due to a bad connection to a fuse terminal has also caused fires. The risk is greatest in the cooker circuit and others that are heavily loaded. In some cases all that is required is to tighten up the grub-screws. In others the connection is bad because a pointed grub-screw has been used and has passed between the strands of the cable instead of clamping them down to the terminal: it may be possible to put this right by removing the point of the screw with a file.

(*d*) *Arcing on to Metal Cover.* Arcing between fuse conductors and the earthed metal cover can be prevented by fixing a thin sheet of fibre or some other suitable insulating material to the affected area on the inside surface of the cover.

(*e*) *Cable Insulation in the Control Panel.* The rubber or p.v.c. insulation of the cables in the control panel should be examined for excessive deterioration due to overheating. The remedial measures will depend upon the extent of the deterioration: if only the cable ends in the control panel are affected it may be sufficient to use a p.v.c. sleeving over the defective insulation.

(*f*) *Socket-outlets and Switches.* In some instances these are housed under metal cover plates which will not accommodate the conventional type of socket or switch interior. Improvision may therefore be necessary when they are renewed and any such work carried out since the last inspection should be tested to ensure that the modified installation is safe.

On the first inspection a check should be made that the cables in the roof space are not in contact with the flue pipe or heating ducts unless, of course, this has already been done.

Any proposal to carry out remedial works to the electrical installation in a temporary house at a cost of more than £5 should be referred to the Principal Regional Officer.

MINISTRY OF EDUCATION. The Minister has now made The Standards for School Premises Regulations 1954, S.I. No. 473. Circulars Nos. 273 and 274 have also been issued by the Ministry explaining the Regulations and the new arrangements for calculating limits of cost for first instalments of the commoner sizes of secondary schools.

These documents are obtainable at H.M. Stationery Office, the Regulations costing 9*d*., Circular 273/54 price 2*d*. and Circular 274/54 price 4*d*.

TOWN AND COUNTRY PLANNING ASSOCIATION. The Fifty-fifth Annual Report of the Association has now been published, and is accompanied by a statement by the Executive containing the following observations:—

Redevelopment may be Spoiled. With the beginning of the redevelopment of congested areas and slums, on which it congratulates the Minister, it would be tragic if this first national effort to combine city redevelopment with considered planning and industrial location were spoiled by the abandonment of housing and layout standards accepted as minima between the wars. 'What is in hand, on a vast scale, is the planned rebuilding of Britain. Rightly carried on, over a period of years, this can redeem from bad living conditions millions of townspeople and greatly advance the industrial productiveness of this country.'

Too many Flats at Excessive Cost. 'Housing densities and proportion of flats now being approved are in our view excessive—though the shortage of dwellings makes people tolerant of them for the time being. There is no case either on the grounds of food supply or of cost of development for the present policy of multi-storey flat building or increased housing density. Official evidence has recently come to light that bears out the Association's estimate of the value of food from gardens: and our statements on the wastefulness of enormous subsidies on flats in relation to the area of land used cannot be contradicted.'

Agricultural Interests: the Value of Food from Gardens. For 55 years the Association has propagated the idea of preserving from random development the main expanse of rural land around and between cities . . . guiding new industrial and residential

development to well-chosen places . . . as much in the interest of rural life and the prosperity of agriculture as of the health and amenity of towns. 'But our success in advocating this has produced an over-emphasis which, supported by organised agricultural interests, is leading to an increase in the housing density accepted as good practice, and statutorily endorsed, since 1924.'

The task of the Association at the moment, concludes the statement, is to emphasise the business and social interests—vital in an industrial country—in the planning of good working and living conditions for the population, at the same time not neglecting the agricultural, aesthetic and other aspects of planning. 'It is perfectly practical, as statements of the Association have shown, to provide amply for the needs of industry and townspeople with the use of only a tiny fraction more of the farming and rural land of this country.'

NATIONAL JOINT COUNCIL FOR THE BUILDING INDUSTRY. Building Wages Decision. At a meeting of the National Joint Council for the Building Industry held in London on 20 April further consideration was given to the wage claim submitted by the building unions. After a retirement following a discussion of the situation the Joint Council decided to make an increase of 1½*d.* an hour for craftsmen and labourers with effect from 24 May 1954. This increase, amounting to 5*s.* 6*d.* for a 44-hour week, is in addition to the 1*d.* per hour granted in February last to craftsmen and labourers under the cost of living sliding scale agreement.

LAW CASE

Moore v. Shawcross. (Queen's Bench Division, 5 April 1954.) In this case, which arose on an award of a special referee, Mr. Moore, a builder, claimed £190 10*s.* 4*d.* increased costs of labour and material incurred in rebuilding a war-damaged house for Mr. Shawcross in 1945–46. The builder's tender was based on bills of quantities and general conditions of contract. One of the clauses in the general conditions was that 'the successful contractor, if any, may be required to enter into the usual form of agreement published by the R.I.B.A.; or other form of agreement required by the War Damage Commission.

Mr. Moore's tender was accepted and he did not enter into the R.I.B.A. agreement, nor was he required to do so.

The special referee found that there was no custom or practice which entitled Mr. Moore to charge Mr. Shawcross with the increases in the cost of labour and materials, in the absence of an express term.

In giving judgment for Mr. Shawcross with costs, the Judge said it was obvious that in the absence of any contractual provision no claim for increased cost of labour and materials could succeed. The contractual provision relied upon by Mr. Moore, and which the court was asked to consider, was said to be contained in, or was implied from, the clause in the general conditions of the contract. Had Mr. Moore entered into the R.I.B.A. form of agreement, paragraph 25 of that document would have enabled him to claim the sum which he desired now to claim, but in the circumstances there was no contract on which he could rely. It had been contended that the contract was subject to the R.I.B.A. agreement and that the only function of the clause in the general conditions was to enable Mr. Shawcross to require the successful tenderer actually to sign the R.I.B.A. form. His Lordship said he could not give any such limited construction to the clause in the general conditions. In any event it seemed quite inconsistent with the fact that there was an option, on the part of the building owner, to ask either for the form of agreement required by the War Damage Commission or the R.I.B.A. form.

Accordingly his Lordship answered the question set out in the special referee's award by saying that the builder was not entitled to charge the building owner on the basis of clause 25 of the R.I.B.A. agreement. (THE ESTATES GAZETTE, 10 April 1954.)

Correspondence

STONEWORK MAINTENANCE IN HISTORIC BUILDINGS

The Editor, The R.I.B.A. Journal.

DEAR SIR,—I was duly impressed by the pious sentiments expressed by Messrs. Rayson, Shore and Markham, but my knowledge of the subject was not greatly increased.

The renewal of stonework is the last thing that should be done as this destroys the authenticity of the structure more than the decay, the 'ancient building' becomes a spurious copy.

How can this be avoided? Has any member reliable records of the results produced by periodic cleaning of stonework using nothing but water under pressure? In theory there would seem everything to be said for it. What examples of it are there to be seen?

Yours sincerely,

LAWRENCE DALE, F.R.S.A. [*F*]

SIR,—Your correspondent Mr. Cecil C. Handisyde takes exception to the proposition that the object of maintenance work must be to retain the present-day condition of the buildings and not to attempt restoration to a new condition. But this proposition is the pure milk of the gospel of the Society for the Protection of Ancient Buildings. A very ancient controversy was so settled, and this must be the first sign of heresy. May it be short-lived! 'Judging each case on its merits' is a *sine qua non*. The careful practitioner *must* do so. This is sufficiently emphasised in the Society's publication *The Repair of Ancient Buildings*. The historic element is of overwhelming importance. Whatever one does this must be preserved, and not falsified. At the same time one can avoid the ruthless Gallic logicality which entirely disregards contemporary amenity.

It should not prove too difficult to find a number of middle courses between the entire replacement of crumbled features in new stone, involving what Mr. Handisyde calls the permanently 'tatty' condition of the whole; and the trickwork of taking new and good material, and dosing or pickling it into premature senility to make it accord agreeably with its surroundings. If there is any lower form of art than the American 'mortician's' ghoulish practice of wax-filling the face of a corpse and decking it out with cosmetics before burial, it must surely be taking honest building materials and making them cheat by looking aged and unsound. The other possibilities are not just the three propounded by your correspondent. There are many more.

One should discriminate between whether the building in hand is a 'live' one, such as a college, continuing to serve a useful purpose, or an obsolete one, such as a church tower retained as a landmark, as with some City churches; or one of the categories between. Again, a Renaissance building will tolerate, with no loss of interest, far more new stone refacing than a mediaeval one, principally because in the former case texture is far less significant. If one is sufficiently purist to wish to leave on record every old stone replaced, a different stone from the original can be used for patching, and sometimes a stone can be found for this which will harmonise more agreeably with the original weathered face than would infilling with new stone from the original quarry. This makes it clear for all time just what the restorer has done, and no doubt posterity will bless him for doing so.

As to Gothic buildings, they present a much more difficult problem. How little need one do is the main point. Structural weaknesses and damp penetrations must be remedied. We must do such things as unobtrusively and kindly as possible. Here, the handbook *The Repair of Ancient Buildings* is beyond value for suggestions as to piecing out what is necessary for the safety of the structure, but emphasises that a broken cusp in the decoration is better left than 'pieced out'.

'Arresting decay' suggests to Mr. Handisyde's mind the use of applied preservatives. It is not intended to do so. The best exponents of this process are the architects of the Ministry of Works, and much may be learned from them. The phrase 'arresting decay' is a good one. We cannot prevent or stop decay, but we can and do avail ourselves of spectacles, dentures and artificial limbs to stave it off, without being accused of simulating youth, or forfeiting our integrity as mellow human beings. A useful analogy lies herein.

I am, Sir,

Yours truly,

CECIL H. PERKINS [*A*]

Notes and Notices

NOTICES

The Eighth General Meeting, Tuesday 15 June 1954 at 6 p.m. The Eighth General Meeting of the Session 1953–54 will be held on Tuesday 15 June 1954 at 6 p.m. for the following purposes:—

To read the Minutes of the Seventh General Meeting held on 18 May 1954; formally to admit members attending for the first time since their election.

To read the report of the Scrutineers appointed to examine the voting papers for the election of the Council for the Session 1954–55.

After the announcement of the election results there will be a general discussion on the subject of Model Building Bye-laws.

(Light refreshments will be provided before the meeting.)

Session 1953–1954. Minutes VI. At the One Hundred and Sixteenth Annual General Meeting, held on Tuesday 4 May 1954 at 6 p.m.

Mr. Howard Robertson, M.C., A.R.A., S.A.D.G., President, in the Chair.

The meeting was attended by about 135 members.

The Minutes of the Fifth General Meeting held on Tuesday 2 March having been published in the JOURNAL, were taken as read, confirmed and signed as correct.

The following members attending for the first time since their election were formally admitted by the President: *As Fellows*, J. M. Cowie, Ivan Williams; *As Associates*, D. W. Adie, D. W. Arend, P. A. Bartlett, D. E. Biley, A. F. Buttall, Leslie Buxton, R. J. Claridge, J. F. W. Cawte, C. G. Crowfoot, B. J. Dobbie, I. J. N. Eeles, P. A. Hamilton, J. S. Harrison, Miss P. J. Johnstone, A. J. Knight, B. C. B. MacDonald, D. E. F. Mayhew, D. N. J. Parris, M. H. J. Robertson, E. G. C. Taylor, P. G. Turner, A. P. Warren, T. F. Weston, M. B. Willoughby-Thomas, K. N. Woodham; *As Licentiates*, R. N. Aylwood, L. V. Kidd.

The President formally presented the Report of the Council and Committees for the official year 1953–1954 and moved that the Report be received. The Acting Hon. Secretary seconded the motion and a discussion ensued.

The motion having been put from the Chair, it was resolved that the Report of the Council and Committees for the official year be received.

On the motion of the President, a hearty vote of thanks was passed to Mr. Robert O. Foster [*F*] and Mr. E. D. Lyons [*A*] for their services as Honorary Auditors for the past year.

Mr. Robert O. Foster [*F*] and Mr. E. D. Lyons [*A*] were renominated for election as Honorary Auditors for the ensuing year of office.

The proceedings closed at 7.59 p.m.

R.I.B.A. Kalendar 1954–55. The next issue of the Kalendar will be published in the autumn and members and Students wishing to notify new addresses, etc., for publication in that issue should do so as soon as possible. The last date for receiving changes for inclusion in the new Kalendar will be 31 May for those in the United Kingdom and the Republic of Ireland and 30 June for those overseas.

R.I.B.A. Award for Distinction in Town Planning. The R.I.B.A. Award for Distinction in Town Planning is the only award in town and country planning bestowed by the R.I.B.A. It is by conferment only and is limited to Fellows, Associates and Licentiates of the R.I.B.A. Outstanding work in the design and layout, not of individual buildings, but of groups of buildings will be recognised. The award will be made for actual planning work and while not primarily intended for housing layouts, such layouts of groups of buildings would not be excluded.

Recommendations are submitted to the Council by a Standing Committee set up for the purpose. Personal applications by candidates will not be entertained; the name of a candidate must be submitted by three or more sponsors, themselves members of the R.I.B.A., who will be required to submit details of the candidate's professional qualifications and experience and evidence of the candidate's actual planning work. Nominations may be made twice annually, on 1 March and 1 November, and must be addressed to the Secretary, R.I.B.A., 66 Portland Place, London, W.1.

Members upon whom the Award has been conferred will be entitled to use the designation 'R.I.B.A. Award for Distinction in Town Planning' and it is advised that this should be used in full, or the initials 'Dist. T.P.' after the initials 'F.R.I.B.A.', 'A.R.I.B.A.', or 'L.R.I.B.A.', according to the class of membership to which they belong.

The R.I.B.A. Appointments Department. Members and Students of the R.I.B.A. and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required, and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable they should obtain from the Secretary an application form, which when completed and returned to the Institute will enable the Department either to send the applicants particulars of vacancies suitable to their qualifications and requirements or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

The Acceptance of Pupils and Junior Assistants and the Probationership of the R.I.B.A. The Board of Architectural Education have noticed that the practice still persists of members accepting pupils or junior assistants without satisfying themselves that such pupils or junior assistants have reached the necessary standard of general education for the Probationership. Members are reminded that it is most important that they should not take boys or girls into their offices unless they possess one of the qualifications laid down.

A list of the recognised examinations can be obtained on application to the Secretary, R.I.B.A.

COMPETITIONS

Competition for the Equipment of Railway Installations: Grand Duchy of Luxemburg. Notice has been received from the Secretary-General, International Union of Architects, of an architectural competition being promoted by the Government of the Grand Duchy of Luxemburg for the equipment of railway installations. Despite representations made by the International Union, the conditions of this competition are not in accordance with the Regulations for International Competitions in Architecture and Town Planning approved by the International Union, **and members and Students R.I.B.A. are accordingly warned not to take part in this competition.**

Dow Prize Competition. The Illuminating Engineering Society offers a prize which will be awarded to the winners of a competition intended to encourage collaboration between students of illuminating engineering or of those branches of engineering concerned with illumination, and students in other fields in which applied lighting plays an important part. While entries from individuals are not excluded, the competition is primarily intended for students (under the age of 26) working in collaboration. The competition will be set and judged by a panel of assessors appointed by the Society in co-operation with the R.I.B.A. and the Institution of Electrical Engineers.

Premium: £75 (and a certificate to each member of the winning team).

Certificates of commendation will be awarded to any other entries of outstanding merit.

Last day for submitting designs: 15 November 1954.

Forms of application and instructions as to the form which entries should take may be obtained from the Secretary of the Illuminating Engineering Society, 32 Victoria Street, London, S.W.1.

BOARD OF ARCHITECTURAL EDUCATION

Examination in Professional Practice and Practical Experience. The examination in Professional Practice and Practical Experience was held in London and Edinburgh on 5 and 6 April 1954.

Of the 229 candidates examined, 184 passed and 45 were relegated. The successful candidates are as follows:—

Abercrombie: J. D.
Alderton: H. G.
Alford: M. G.
Allen: J. C.
Allford: David
Ashby: S. R. J.
Bailey: Frank
Banwell: G. E.
Barber: E. A.
Barnett: N. J.
Batliwala: N. B.
Batt: A. G.
Batty: J. G.
Baverstock: W. H. J.
Beckles Willson: Anthony
Behrend: A. M. (Miss)
Bestley: J. W. R.
Binns: G. D.
Bond: F. A.
Booth: C. E. (Miss)
Bott: O. J. P.
Bowden: G. L.
Brazier: A. J.
Brown: Alan W.
Buckingham: B. J. S.
Burgoine: R. C.
Carson: G. L.
Carter: A. K. F.
Chetwynd-Stapylton: H. P.
Chevalier: P. H.
Chrisp: G. W.
Clarkson: Lawrence
Cockram: N. L.
Cummins: E. E. G.
Davidson: G. K.
Davies: I. F.
Davis: N. C.
Day: M. R.
Denham: K. L.
Dickson: William
Dixon: D. A. E.
Dobb: A. J.

Drought: T. R.
Dumpress: P. W.
Dunne: J. M.
Durell: C. A. (Miss)
Ellison: E. D.
Elson: Stanley
Fairbairn: K. S.
Fairs: Ernest
Fawcett: E. S.
Fernley: Clifford
Flower: R. H. W.
Francis: J. W.
Franklin: R. G.
Fraser: R. S.
Gathern: R. C.
Gibson: F. R.
Gibson: K. M.
Gildersleeve: R. F.
Grace: F. R.
Graves: M. V.
Gray: S. M. (Miss)
Greenwood: Denis
Hadwick: Geoffrey
Hall: Peter
Hammond: F. W.
Hampson: I. G.
Harbott: C. C.
Harper: A. S.
Hart: S. N.
Hauser: G. O.
Helyar: Leonard
Henton: A. S.
Higson: G. T.
Hill: E. E.
Hitch: J. S.
Hodgson: L. T.
Howitt: J. P.
Hudek: J. F.
Hudson: Brian
Hynch: G. R.
Ingelbrecht: D. M. L.
Jeffery: E. C.
Johnston: N. J.
Jones: John N.
Jones: Norman W.
Jones: Thomas L.
Kain: R. D.
Kerss: J. E.
Kruchek: F. M.
Lacey: G. I.
Lambert: J. B.
Leighton: E. S.
Long: I. D.
Long: K. S.
Lorenz: Erhard
Luder: H. O.
McClenaghan: Alexander
McGowan: D. K.
McLaren: D. W.
McLean: Thomas
McNicol: L. P.
Malson: B. W. C.
Manser: M. J.
Marner: D. L. S. D.
Marshall: V. D.
Mathewson: A. J.
Mortimer: R. W. A.
Murphy: D. Y.
Neal: J. G.
Neville: C. C.
Newberry: M. A.
Nicholls: R. P.
Nichols: W. H. E.
Oldham: Kenneth
Oltmanns: Peter
O'Neill: A. M.
Orford: T. K.
Paine: J. W.
Palmer: M. J. D.
Parker: N. C. C.
Parry: A. R.
Partridge: Barry
Pearcey: P. H. R.
Pepper: P. W. (Miss)
Pickford: V. A. (Miss)
Pietruszewski: Z. J.
Pillinger: G. D.
Piper: G. B.
Podleski: Czeslaw
Prescott: J. A.
Quin: J. F.
Randall: D. E.
Read: H. S.
Reeves: E. S.
Riche: D. J. L.
Riley: R. B.
Ritter: J. A.
Robinson: R. F. P.
Roe: S. A.
Ross: Alan
Rottenberg: Gerson
Rowlands: J. D.
Rylatt: Jack
Sandwell: S. T.
Sargent: J. R. A.
Scrivins: D. C.
Shaw: C. R.
Shawcroft: Brian
Spashett: E. T.
Spooner: F. J.
Stark: J. G.
Stephens: T. G.
Stephenson: Arthur
Stokes: R. D.
Stone: P. R.
Stringer: P. H.
Stroud: E. A.
Sumpster: D. B.
Swinson: A. H.
Syborn: V. J.
Thomas: E. R. J.
Thomas: G. J. W.
Thurgood: V. J.
Towler: E. R.
Townsend: Sydney
Turner-Davis: Bernard
Turner: E. N.
Turner: F. A. J. C.
Underhill: D. M.
Vaughan: P. W. F.
Vincent: P. G.
Walker: P. R.
Warner: B. G.
Waterhouse: P. M. (Miss)
Waugh: Keith
Weeks: L. A.
Westlake: R. F.
Willis: G. E.
Wilmot: G. H.
Wilson: Michael
Winch: D. J.
Wrightam: E. E.

Intermediate Design Prize Competition. In the United Kingdom 398 competitors took part in the Intermediate Design Prize *en loge* competition. The following competitors have been selected to proceed with the final drawings for the competition: Mr. K. P. Campbell (Liverpool School of Architecture, University of Liverpool), Mr. D. H. Cheney (School of Architecture, The Polytechnic, Regent Street, London), Mr. J. H. F. Coffin (The R.W.A. School of Architecture, Bristol), Mr. C. J. Collins (School of Architecture, The Polytechnic, Regent Street, London), Mr. G. D. Fyson (School of Architecture, The Polytechnic, Regent Street, London), Mr. A. R. Gilmour (School of Architecture, Edinburgh College of Art), Mr. K. L. Kear (Dept. of Architecture, The Northern Polytechnic, London), Mr. J. A. Kennett (School of Architecture, The Polytechnic, Regent Street, London), Mr. D. P. J. Laird (School of Architecture, Edinburgh College of Art), Mr. W. E. Milnes (Dept. of Architecture, The University of Sheffield), Mr. J. E. Porter (The L.C.C. School of Building, Brixton), Mr. Lionel Stirges (Liverpool School of Architecture, University of Liverpool), Mr. C. V. Storm (Leeds School of Architecture, Leeds College of Art), Mr. Alan Thompson (The R.W.A. School of Architecture, Bristol), Miss A. E. Weedon (School of Architecture, Edinburgh College of Art).

The Victory Scholarship Competition. In the United Kingdom 165 competitors took part in the Victory Scholarship *en loge* competition. The following competitors have been selected to proceed with the final drawings for the competition: Mr. David Brown (The Nottingham School of Architecture), Mr. Geoffrey Copcutt (Dept. of Architecture, College of Art, Leicester), Mr. J. W. T. Davis (Birmingham School of Architecture), Mr. J. V. Gibberd (School of Architecture, The Polytechnic, Regent Street, London), Mr. A. G. L. Gibson (Birmingham School of Architecture), Mr. R. E. Johnston (Dept. of Architecture, Brighton College of Art and Crafts), Mr. Roy Latham (School of Architecture, Victoria University, Manchester), Mr. J. R. Marshall (School of Architecture, Edinburgh College of Art), Mr. Alfred Meyer (Dept. of Architecture, The Northern Polytechnic, London), Mr. Michael J. Smith (Birmingham School of Architecture), Mr. St. J. P. Stimson (Dept. of Architecture, College of Art, Leicester), Mr. J. G. Toon (Dept. of Architecture, College of Art, Leicester).

Testimonies of Study. Illustrated Notes for the Guidance of Students preparing R.I.B.A. Intermediate and Final Examination Testimonies of Study, as printed in the March JOURNAL, are now available in the form of a pamphlet. Copies may be obtained free of charge on application to the Secretary, R.I.B.A.

ALLIED SOCIETIES

Changes of Officers and Addresses

Devon and Cornwall Society of Architects, Plymouth Branch. Chairman, C. H. P. Pearn [*A*].

East Anglian Society of Architects. President, B. W. J. Olley [*A*]. (Mr. Olley also remains President of the Suffolk Association of Architects.)

Essex, Cambridge and Hertfordshire Society of Architects. President, Harold Mileson [*F*], Old Station Road, Loughton, Essex. Hon. Secretary, R. O. Vine [*A*], Tudor Chambers, Station Road, Wood Green, London, N.22. *Cambridge Chapter:* Chairman, W. K. Ferguson [*A*], 289 Milton Road, Cambridge. Hon. Secretary, Donald A. G. McLeod [*A*], 9 Victoria Park, Cambridge. *Colchester and District Chapter:* Chairman, H. W. Pearce [*L*], 7 West Stockwell Street, Colchester. Vice-Chairman, F. S. Clater [*A*]. Hon. Secretary, W. F. Hurry [*L*], 126 Straight Road, Lexden, Colchester. *Hertfordshire Chapter:* Chairman, J. E. L. Caldwell, A.M.T.P.I. [*A*]. *Southend-on-Sea and District Chapter:* Chairman, Reginald F. S. Fenton [*A*], 4 Weybourne Close, Southend-on-Sea. Hon. Secretary, G. G. Shenstone [*A*], 34 Bloomsbury Way, London, W.C.1. *West Essex Chapter:* Chairman, S. J. Clapp, 42 Trapps Hill, Loughton, Essex.

Liverpool Architectural Society. President, W. H. Glen Dobie, T.D. [*A*], 11 Rumford Street, Liverpool 2.

Royal Australian Institute of Architects and the *New South Wales Chapter.* Secretary, J. D. Storrie, 1st Floor, Daking House, Rawson Place, Sydney, N.S.W., Australia.

Hampshire and Isle of Wight Architectural Association, Eastern Chapter. Annual Dinner and Guest Night. The Eastern Chapter of the Hampshire and Isle of Wight Architectural Association held its Annual Dinner and Guest Night at the Royal Beach Hotel, Southsea, on Wednesday 28 April. The Chairman of the Chapter, Mr. A. C. Townsend [*F*], was in the Chair. One hundred and twenty members and guests attended. Among the guests were the Very Reverend E. N. Porter Goff, Provost of Portsmouth; the Lord Mayor of Portsmouth, Alderman Frank Miles, J.P.; the Mayor of Gosport, Alderman A. J. Eales; Mr. P. J. Parkhouse, President of the Portsmouth Builders' Association; Mr. Gordon Sutcliffe [*A*], President of the Hampshire and Isle of Wight Architectural Association and Mr. A. E. Geens [*F*], Vice-President of the Hampshire and Isle of Wight Architectural Association.

A toast to 'The Mistress Art' was proposed by Mr. E. Maxwell Fry, C.B.E. [*F*], and Sir Thomas Bennett, C.B.E., F.R.S.A. [*F*], replied. A toast to the Chapter was proposed by the Provost of Portsmouth and Mr. Townsend responded. Mr. T. K. Makins [*A*] proposed a toast to the guests, and response was made by the Lord Mayor of Portsmouth and Mr. P. J. Parkhouse.

It was agreed that it was the Chapter's most successful post-war dinner.

Northern Architectural Association. Annual Dinner and Dance. The Northern Architectural Association held their annual dinner and dance at the Old Assembly Rooms, Newcastle upon Tyne, on 8 April. Mr. C. A. Harding [*F*], President of the Association, was in the chair, and among the guests were Mr. Howard Robertson, M.C., A.R.A., S.A.D.G., President R.I.B.A.; Alderman W. McKeag, J.P., Lord Mayor of Newcastle upon Tyne; Dr. C. I. C. Bosanquet, M.A., D.C.L., Rector of King's College, Newcastle upon Tyne; Mr. A. W. J. Scoble, Regional Director, Ministry of Works; Mr. Noel Pyman [*F*], President of the West Yorkshire Society of Architects; Mr. J. J. Gordon [*L*], Vice-President of the Edinburgh Architectural Association; and the Chairmen respectively of the Northern Counties F.B.T.E., of the Northumberland and Durham Branch of the R.I.C.S. and the Northern Society of Chartered Accountants, and the President of the Newcastle upon Tyne Law Society.

The toast of 'The Municipal Authorities of our Province' was proposed by Mr. J. H. Napper, A.M.T.P.I. [*F*], and responded to by the Lord Mayor. Dr. Bosanquet proposed 'The R.I.B.A. and its Allied Societies' and the President R.I.B.A. replied. Mr. Harding proposed the toast of 'Our Guests' and Mr. Noel Pyman responded.

GENERAL NOTES

L.C.C. Qualifying Examination for the Office of District Surveyor. An examination for certificates of proficiency to perform the duties of district surveyor will be conducted in

London in the week beginning 18 October 1954. The minimum age limit for candidates is 25.

Possession of this certificate is necessary for appointment to positions as District Surveyor (Salary scale £1,215 to £2,200 a year) or as Assistant District Surveyor (salary scale £1,027 to £1,168 a year).

Subsequent examinations will be held annually.

Apply to The Architect to the Council (AR/ED/PH), County Hall, Westminster Bridge, S.E.1, for application forms and further particulars.

The Alexander Thomson Travelling Studentship 1954. The Trustees offer a prize of £100. The subject for the competition is a design for an open-air theatre. For conditions and programme apply to William MacLean, Secretary of the Glasgow Institute of Architects (the Council whereof are the Trustees), 21 West George Street, Glasgow.

Ecclesiastical Architects' and Surveyors' Association. At the Annual General Meeting of the Association, which was held at the R.I.B.A., it was decided that, as the title 'Ecclesiastical Surveyors' Association' was to some extent misleading, it should be altered to 'Ecclesiastical Architects' and Surveyors' Association'. The majority of diocesan surveyors are also members of the R.I.B.A., and are engaged continually in the design and maintenance of ecclesiastical buildings. The question of admitting other architects and surveyors who are engaged in ecclesiastical work, but who do not hold appointments as diocesan surveyors, was discussed and referred to a sub-committee for investigation and report.

The following officers were elected for 1953–1954: *President:* Alexander Leach, F.R.I.C.S. [*A*]. *Vice-President:* Robert W. Paterson, A.M.T.P.I. [*A*]. *Secretary and Treasurer:* Paul J. J. Panter [*F*].

Canterbury Summer School 1954. A residential course of studies of one week is being organised by the Canterbury Society, to be held at St. Augustine's College, Canterbury. While the School is not intended solely for architects or architectural students, it includes a visit to and a lecture on the Cathedral stained glass by Mr. Bernard Rackham and a lecture by Mr. Reginald Turner on the Gothic Revival. Other lecturers, including Richard Church and William Urry, will talk on literary figures of the city and on pilgrims and churchmen. Visits will be arranged to buildings of interest in and around the city, including, it is hoped, some of the post-war development.

The School will be held from 25 August to 1 September at a total inclusive cost of £8 10*s.* 0*d.* There is a limited number of places available, and application forms, which should be returned not later than 31 May, may be obtained from the Hon. Secretary, The Canterbury Society, 42 Cherry Drive, Canterbury, Kent.

Correction

The repair work at Exeter Cathedral, described in the April issue, should have been ascribed as follows: 'Architects: W. Godfrey Allen, M.A., F.S.A. [*F*], and H. M. Drury [*F*], Surveyor to the Dean and Chapter'.

R.I.B.A. Cricket Club. Fixtures 1954. *Wed. 12 May*, The Vitruvians (A.A. Ground, Elstree). *Thurs. 3 June*, The London Master Builders' Association (Pearl Assurance Ground, New Malden). *Wed. 16 June*, A.A. (A.A. Ground, Elstree). *Tues. 13 July*, Blue Circle C.C. (Wimbledon C.C. Ground, Church Rd., Wimbledon). *Wed. 18 August*, R.I.C.S. (College of Estate Management Ground, Hinchley Wood). *Wed. 1 September*, Club Cricket Conference XI (Wimbledon C.C. Ground, Church Rd., Wimbledon).

Notes from the Minutes of the Council

MEETING HELD 6 APRIL 1954

1. Appointments. (A) *New Council for Codes of Practice for Buildings: R.I.B.A. Representatives.* P. V. Burnett [*F*] and Charles Woodward [*A*]. (B) *Council for the Preservation of Rural England: R.I.B.A. Representative.* C. W. C. Needham [*F*] in place of Henry Braddock [*A*]. NOTE: The other R.I.B.A. representative is Sir Patrick Abercrombie [*F*]. (C) *University of Wales Faculty of Architecture: R.I.B.A. Representative.* Norman P. Thomas [*A*] re-appointed. (D) *R.I.B.A. Architecture Bronze Medal: R.I.B.A. Representatives to serve on Juries.* (i) *New South Wales Chapter, Royal Australian Institute of Architects.* William R. Laurie [*F*]. (ii) *Hampshire and Isle of Wight Architectural Association.* Robert Potter [*F*], President, Wessex Federal Society of Architects. (E) *Code of Practice for Zinc Roofing: R.I.B.A. Representatives on Drafting Committee.* C. W. Hutton [*F*] and E. D. Mills [*F*]. (F) *General Council for the Registered Plumbers' Association: Annual Meeting, Nottingham, 4th June 1954: R.I.B.A. Representative.* F. Hamer Crossley [*F*], President, Nottingham, Derby and Lincoln Society of Architects. (G) *Forest Products Research Laboratories: Committee on Grading of Home Grown Softwoods: R.I.B.A. Representative.* G. Newell [*A*]. (H) *R.I.B.A. Co-ordinating Representative on Group of B.S.I. Committees:*

ASB/–	Asbestos Cement Products Industry Standards Committee
ASB/1	Asbestos for Cement Sheeting
ASB/2	Asbestos Cement Pressure Pipes
ASB/3	Light and Heavy Flue Pipes
ASB/4	Asbestos Rainwater and Soil Pipes
B/34	Damp-proof courses
B/61	Architecture and Building Drawing Office Practice
B/64	Kitchen furniture
B/80	Sills and Lintels
B/80/3	Natural Stone Sills and Lintels
BMB/–	Bituminous Products Industry Standards Committee
BMB/1	Bituminous Felt and Damp-proofing Courses
BMB/2	Asphalt and Pitch Mastic for Building Purposes
CEB/8	Gypsum and Gypsum Products
CEB/8/–/1	Calcium Sulphate Building Plasters
GLC/1	Glass and Glazing
MEE/85	Drawing Office Equipment and Materials
SFE/14/3	Thermal Insulating Materials for Building
SFE/14/5	Definitions of Heat Insulating Terms and Methods of Determining Thermal conductivity and Solar Reflectivity
STB/–	Natural Stone and Quarry Products Industry Standards Committee
STB/3	Classification of Stone for Building Purposes
STB/6	Exfoliated Vermiculite

E. H. Sadler [*A*] in place of C. J. Epril [*F*].

2. Mr. J. A. Coia, A.R.S.A. [*F*]. The congratulations of the Council were conveyed to Mr. J. A. Coia [*F*] on his election as an Associate of the Royal Scottish Academy.

3. Grants. The Council approved the following list of grants for the year 1954–55:

	£	s.	d.
British School at Rome	750	0	0
Architects' Benevolent Society	150	0	0
Architectural Association: Lantern Slide Collection	100	0	0
British School of Archaeology at Athens	50	0	0
Council for the Preservation of Rural England	50	0	0
Students' Visit to Rome	50	0	0
British Standards Institution	31	10	0
Parliamentary and Scientific Committee	26	5	0
R.I.B.A. Cricket Club	10	10	0
R.I.B.A. Library Group	10	0	0
Association for the Preservation of Rural Scotland	10	0	0
Council for the Preservation of Rural Wales	7	0	0
International Federation for Housing and Town Planning	5	0	0
National Art Collections Fund	3	3	0
British School at Rome, Faculty of Archaeology	3	3	0
Total	£1,256	11	0

4. Conditions of Engagement and Scale of Professional Charges. Final approval was given to the revised Conditions of Engagement and Scale of Professional Charges, after consideration of all the comments received from the general body of members. The finally approved draft was published in the R.I.B.A. JOURNAL for April 1954 and will come into force on 1 June 1954. Copies of the new booklet are now available, price 6*d.*

5. R.I.B.A. Architecture Bronze Medal: The Wessex Federal Society of Architects. The Secretary reported that the Jury convened by the Wessex Federal Society of Architects to make an award of the R.I.B.A. Architecture Bronze Medal for the three years ending 31 December 1953 had submitted their report. They had made the award in favour of the Church of St. Francis of Assisi, Ashton Gate, Bristol, designed by Robert J. Potter [*F*] and R. W. Hare [*A*]. It was agreed to give formal approval to this award.

6. Report of the Joint Committee on Tendering Procedure. The report of the Joint Committee on Tendering Procedure was read and noted. The Council recalled that agreement had already been reached on reconstituting the Joint Consultative Committee of Architects and Builders on the lines of a tripartite liaison committee, including the Royal Institution of Chartered Surveyors, with the special task of following up matters arising from the Report and of productivity generally. Arrangements for the Royal Institute's share of the responsibility for secretarial services in this connection were also considered.

7. British Architectural Guild. The Council considered the documents submitted by the

British Architectural Guild. It was agreed that, irrespective of the result of the questionnaire on representation of members in salaried employment, the British Architectural Guild should not be supported by the R.I.B.A., and that members and Students should be advised accordingly.

8. Membership. The following members were elected:—as Honorary Corresponding Member 1, as Fellows 5, as Associates 74.

9. Students. 40 Probationers were elected as Students.

10. Resignations. The following resignations were accepted with regret:—William Arthur Banks [*F*], Albert Edward Godber [*A*], David Denison Jones [*A*], Neville Woodbury [*A*], Alfred Norman Coveney [*L*], William Atkins Rudling [*L*], Henry Edward Tufton [*L*].

11. Application for Transfer to Retired Members' Class under Bye-law 15. The application of Mr. James Palmer for transfer to the Class of Retired Associates was approved.

12. Obituary. The Secretary reported with regret the death of the following members:—Kenneth Russell Brady [*F*], Richard Greaves Brocklehurst [*F*], Douglas Niel Martin-Kaye [*F*], Harold William Moore [*F*], Norval Rowallan Paxton, M.C. [*F*], John Stewart [*F*], John Leighton Fouracre [*Retd. F*], Herbert William Matthews [*Retd. F*], Thomas William Vivian May [*Retd. F*], Walter Dawson [*A*], Francis John East [*A*], Frederick Charles Langrish-Toye [*A*], James Saunders [*A*], Charles Henry Simpson [*A*], Charles Nigel Wallnutt [*A*], Edward Eric Bridge [*L*], Arthur Edward Fewster [*L*], Horace Blackbrough Midgley [*L*], Albert Roy Gatehouse [*Student*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

Membership Lists

ELECTION: 4 MAY 1954

The following candidates for membership were elected on 4 May 1954.

AS FELLOWS (6)

Bailey: Harry, Dipl.Arch. (Leeds) [*A* 1937], Harrogate.

Brown: Eric, Dipl.Arch. (Leeds) [*A* 1937], Harrogate.

Brown: William Clifford, Dipl.Arch., Dipl.T.P. (Leeds), A.M.T.P.I. [*A* 1933], Bradford.

Lewis: Anthony Clyde, B.Arch. (McGill) [*A* 1945], Port of Spain, Trinidad, B.W.I.

Simpson: Ian Begg [*A* 1938], Victoria, B.C., Canada.

Webster: Harry, Dipl.Arch. (Leeds) [*A* 1937], Leeds.

AS ASSOCIATES (52)

Anderson: John Kennedy, Dip.Arch. (Abdn.).

Anderson-Bell: Andrew, D.A. (Edin.), Edinburgh.

Atkins: David Digby, Dip.Arch. (Nottm.), Gedling.

Beaton: Robert Iain, Dip.Arch. (Abdn.), Golspie.

Bedding: Thomas Richard, B.A. (Sheffield), Seaford.

Burton: Keith, York.

Campbell: Denis Wilson Ian [Final], Bangor, Co. Down.

Cawthorn: (Mrs.) Mary Gulielma, Nottingham.

Clark: Douglas James, Gt. Yarmouth.

Clynes: Roger Ernest, Dip.Arch. (The Polytechnic).

Corne: Gerald, Cardiff.

Cowburn: Noel Anthony, Dip.Arch. (Manchester), St Annes-on-Sea.

Crabtree: Frederick Alan, Dip.Arch. (Dunelm), Newcastle upon Tyne.

Dickinson: Robert Gordon, Blackpool.

Elderkin: David George, B.A.(Arch.) (Manchester), Nottingham.

Elliott: Derek Owen Guttridge, Dip.Arch. (The Polytechnic), St. Albans.

Fleetwood: Michael John, Dip.Arch. (The Polytechnic), Sevenoaks.

Gosby: Denis Rowland, Dip.Arch. (The Polytechnic), East Malling.

Gutteling: Marinus, Welwyn Garden City.

Hargreaves: Donald, B.A. (Manchester), Manchester.

Harris: Stuart Lowe, Edinburgh.

Jackson: Peter Hopkinson, Dip.Arch. (Sheffield), Sheffield.

Johnston: Harvey, Cupar.

Jolley: Robert, B.Arch. (L'pool), Wigan.

Jones: Derek Gwyther, Swansea.

Kerr: Alexander, D.A.(Glas.), New Cumnock.

Korwin-Szymanowski: Peter.

Landau: (Miss) Rosalie, B.A.(Arch.) (London).

Lawrie: Kenneth Sinclair, Dip.Arch. (Abdn.), Toronto, Ontario, Canada.

McColl: (Miss) Sheila Mary, Bexleyheath.

MacDonald: Alexander George, Inverness.

McKelvie: James Norval, Troon.

Morgan: Dennis Cecil, Tonbridge.

Nisbet: Alexander Thomas Lawrie, D.A. (Edin.), Dunbar.

Pan Rosenwald: Thomas, Dip.Arch. (The Polytechnic).

Pottinger: Thomas Oliver, D.A. (Edin.), Edinburgh.

Riley: John Barker, Dipl.Arch. (Leeds), Harlow.

Sass: Jonathan.

Saville: (Miss) Yvonne Thyra, B.A. (Cantab), D.A. (Edin.).

Smith: Andrew Charles, Dip.Arch. (Manchester), Broken Hill, Northern Rhodesia.

Smith: Derek, Sutton Coldfield.

Smith: Roland George, Dip.Arch. (The Polytechnic).

Solomon: Seymour Jasper, Dip.Arch. (Nottm.), Nottingham.

Stewart: George Kerr, D.A. (Dundee), Aberfeldy.

Stewart: Ian Salkeld, Motherwell.

Thomas: Stephen Frank Evan, Cardiff.

Uglow: Edmund William, Dip.Arch. (The Polytechnic).

Wakeham: Gerald William, Croydon.

Wheeler: Peter, Dip.Arch. (The Polytechnic).

Whitaker: Michael John, Dip.Arch. (The Polytechnic), Slough.

Wilkins: Jack Edwin, Dip.Arch. (Manchester), Stoke-on-Trent.

Williams: Ben Guy, Dip.Arch. (Cardiff), Penryn.

AS LICENTIATES (8)

Bingham: Frederick Ernest, Maidstone.

David: Ivor Arthur.

Kinver: Frederick William.

Lynn: Henry, Belfast.

McCartney: Archibald Hunter, Glasgow.

Neaves: Sidney Jack, Maidstone.

Palmer: Jack Frank.

West: Charles William.

ELECTION: 15 JUNE 1954

An election of candidates for membership will take place on 15 June 1954. The names and addresses of the candidates with the names of their proposers, found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Saturday 5 June 1954.

The names following the applicant's address are those of his proposers.

AS FELLOWS (9)

Batty: John [*A* 1921], 142/3 Minories, E.C.3; 24 Amerland Road, Wandsworth, S.W.18. Prof. Sir William Holford, Dr. Charles Holden, L. S. Sullivan.

Hayes: Louis [*A* 1935], 34 Harborne Road, Edgbaston, Birmingham, 15; 20 Westfield Hall, Hagley Road, Edgbaston, Birmingham, 16. S. N. Cooke, E. Holman, H. L. Hare.

Hutchison: Robert Forbes [*A* 1937], Messrs. Walter Alison and Hutchison, 38 York Place, Edinburgh, 1; 22 Learmonth Crescent, Edinburgh, 4. J. Holt, J. R. Piggott, J. A. Pickavance.

Ionides: (Mrs.) Anne Joyce [*A* 1930], c/o Messrs. Cluttons, 5 Great College Street, S.W.1; 60 North Hill, N.6. J. V. Hamilton, E. Playne, S. R. Pierce.

James: Ernest Edwin [*A* 1938], Cathedral Chambers, King Street, Hereford; 'Wilscombe', 28 Moor Farm Lane, Hereford. H. J. Powell, A. E. Beswick, G. A. Crockett.

Lomas: James Philipps, Dipl.Arch. (L'pool) [*A* 1937], Martin's Bank Chambers, Victoria Street, Douglas, Isle of Man; Langroyd, King Edward Road, Onchan, Isle of Man. A. J. Davidson, Prof. L. B. Budden, B. A. Miller.

Lowe: George Charles [*A* 1936] 4 High Street, Croydon, Surrey; 'Uphill', Purley Downs Road, Sanderstead, Surrey. J. K. Hicks, Sir Edward Maufe, E. B. Musman.

Robb: George [*A* 1933], 16 Brazennose Street, Manchester, 2; 'Lintols', Manchester Road, Chapel-en-le-Firth, Derbyshire. W. C. Young, F. L. Halliday, Gerald Sanville.

Whitby: George Frederick, M.B.E. [*A* 1947], 14 North Audley Street, W.1; 48 Castlebar Road, Ealing, W.5. D. H. McMorran, Horace Farquharson, W. A. Rutter.

AS ASSOCIATES (224)

The name of a school, or schools, after a candidate's name indicates the passing of a recognised course.

Adkins: Edgar Henry James [Final], 9 Oakwood Avenue, Hutton, Brentwood, Essex. Harold Conolly, Denis Senior, J. M. Scott.

Alderton: Harry Graham [Special Final], 73 Harberton Road, N.19. T. E. Scott, W. Mollison, H. E. Foreman.

Alford: Michael Gower [Final], 20 Avenue Road, Osterley, Middlesex. Eric Ambrose, A. B. Waters, D. Nightingale.

Allford: David, B.A.(Arch.) (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 8 Parkhill Road, N.W.3. Prof. Stephen Welsh, F. R. S. Yorke, E. E. Rosenberg.

Allen: John Cooper [Special Final], 3 Rose Hill, Keyworth, Nottingham. H. H. Dawson, C. F. W. Haseldine, R. W. Cooper.

Ashby: Samuel Ralph John, A.R.I.C.S. [Special Final], 45 Croftdown Road, N.W.5. Paul Nightingale, Arthur Korn, G. A. Crockett.

Bailey: Frank, Dip.Arch. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 42 Woodholm Road, Ecclesall, Sheffield, Yorks. Prof. Stephen Welsh, H. B. S. Gibbs, H. B. Leighton.

Banwell: George Edward [Final], 80 Whitstable Road, Canterbury, Kent. A. W. Swaine, H. C. Ashenden and applying for nomination by the Council under Bye-law 3(*d*).

Barber: Eric Anthony [Final], 59 Salisbury Avenue, Barking, Essex. Frederick Barber, C. C. Shaw, T. E. North.

Barnett: Norman James [Special Final], 74 Redlands Road, Solihull, Birmingham. G. C. Gadd, William Haywood, Herbert Jackson.

Batliwala: Navel Bomanshaw [Final], 27 Belsize Park, N.W.3. A. Beasley and applying for nomination by the Council under Bye-law 3(*d*).

Batt: Arthur George [Final], 15 Ravenscar Road, Downham, Bromley, Kent. M. H. Forward, L. G. Pargiter, Z. Sirotkin.

Batty: John Geoffrey [Special Final], 142/3 Minories, E.C.3. J. S. Walkden, S. B. Caulfield, H. G. Stanham.

Baverstock: William Howard John [Special Final], 20 Guessens Road, Welwyn Garden City, Herts. C. W. Fox, J. K. Robertson, Paul Mauger.

Behrend: (Miss) Anne Margaret, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 2 Lowndes Street, S.W.1. Prof. L. B. Budden, E. E. Rosenberg, F. R. S. Yorke.

Benson: Jeremy Henry (Arch. Assoc. (London): Sch. of Arch.), Walpole House, Chiswick Mall, W.4. Henry Elder, R. E. Enthoven, George Fairweather.

Bestley: John William Richard [Special Final], 23 Southfield, Polegate, Sussex. W. Mollison, David Clarke, C. H. Murray.

Binns: George Duncan, Dipl.Arch. (Leeds) (Leeds Sch. of Arch.), c/o Messrs. Edwards & Webster, 10 St. Mary Street, Chippenham, Wilts. John Hardwick, P. W. Edwards, R. J. Potter.

Binns: Ronald George, Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 175 Ladyshot, Mark Hall South, Harlow, Essex. J. S. Walkden, Frederick Gibberd, A. H. Gale.

Bond: Frederick Arnold [Special Final], 104 Greenford Avenue, Hanwell, W.7. Halstead Best, Paul Nightingale, Arthur Korn.

Booth: (Miss) Cynthia Eleanor [Final], 50 North End Road, N.W.11. T. E. Scott, W. A. Eden, Prof. H. O. Corfiato.

Bottomley: Philip Arthur (Northern Poly. (London): Dept. of Arch.), 122 Adelaide Road, N.W.3. T. E. Scott, D. F. Martin-Smith, H. Bramhill.

Bowden: Geoffrey Laurence [Special Final], Birch Cottage, Wiltshire Road, Crowthorne, Berks. E. C. Davies, John Greaves, T. L. J. Chamberlain.

Brazier: Arthur John, Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 52 Cranes Park Road, Sheldon, Birmingham, 26. A. Douglas Jones, T. M. Ashford, E. Watson.

Bright: Roy Arthur (Arch. Assoc. (London): Sch. of Arch.), 54 Melstock Avenue, Upminster, Essex. Denis Clarke Hall, Arthur Korn, R. F. Jordan.

Brown: Alan Whitford, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 'Lauderdale', Strang Road, Union Mills, Isle of Man. Prof. L. B. Budden, Prof. R. Gardner-Medwin, A. J. Davidson.

Buckingham: Bruce James Stanley [Final], 10 Goldstone Way, Hove, 4, Sussex. H. H. Ford, K. E. Black, S. H. Tiltman.

Burgoine: Robert Cocks [Special Final], 'Home Close', Colney Lane, Cringleford, Norwich. Harold Dicksee, L. G. Hannaford, C. J. Tomkins.

Burrows: Michael John Lewis, Dipl.Arch. (Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.), 'The Gables', Stroud Road, Holyport, Nr. Maidenhead, Berkshire. T. E. Scott, Daydon Griffiths, E. D. N. Bomer.

Buxton: Thomas, D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), 49 Mauchline Avenue, Dundee. John Needham, A. D. Haxton, T. H. Thoms.

Cannon: Donald Jack, Dipl.Arch. (Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.), 50 Leyden Mansions, Crouch Hill, N.19. H. Lidbetter, T. E. Scott, S. F. Burley.

Carter: Albert Kenneth Frank [Final], 'Fernside', 21 Bay Road, Sholing, Southampton, Hants. Applying for nomination by the Council under Bye-law 3(*d*).

Chambers: Ronald, Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 21 Millham Street, Blackburn. Gordon Stirrup, Walter Stirrup, Prof. R. A. Cordingley.

Chevalier: Philip Helier [Special Final], 41 Cathcart Road, S.W.10. G. B. Drury, S. P. Dales, H. M. Pett.

Chrisp: Geoffrey William [Final], 20 Avenue Road, Westcliff-on-Sea, Essex. Norman Keep, J. M. Scott, P. F. Burridge.

Clark: James Colin Foulger (Arch. Assoc. (London): Sch. of Arch.), 32 Craignair Road, Tulse Hill, S.W.2. Henry Elder, George Fairweather, Arthur Korn.

Clarkson: Lawrence [Special Final], 88 The Avenue, Wembley, Middlesex. F. J. Lander, H. E. Foreman, P. V. Mauger.

Clendinning: Walter Maxwell, A.A.Dipl. (Arch. Assoc. (London): Sch. of Arch.), Richhill, Co. Armagh, N. Ireland. A. F. Lucy, E. D. Taylor, R. S. Wilshere.

Cockram: Norman Leonard [Special Final], 'Moorong', Union Road, Exeter, Devon. H. B. Rowe, H. M. R. Drury, John Bennett.

Cook: Alfred Sidney (Arch.Assoc. (London): Sch. of Arch.), 26A Hewlett Road, Cheltenham, Gloucestershire. Peter Falconer, H. F. Trew, G. H. Ryland.

Cooper: Edward Roland (Arch. Assoc. (London): Sch. of Arch.), Highfield Cottage, Church Lane, Graveley, Hunts. Peter Bicknell, D. W. Roberts, H. C. Hughes.

Cooper: John Watson, B.A. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 12A, Severn Road, Broomhill, Sheffield, 10. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs.

Cramer Roberts: (Miss) Benita Esme Frances (Arch. Assoc. (London): Sch. of Arch.), Claremont House, 44 High Street, Wimbledon Common, S.W.19. Henry Elder, George Fairweather, Denis Poulton.

Crothers: John, Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 7 Lynton Avenue, Royton, Oldham, Lancs. Prof. R. A. Cordingley, W. C. Young, F. L. Halliday.

Cummins: Ewart Ernest George [Special Final], 15 Windlesham Close, Portslade, Sussex. J. S. Walkden, Dr. J. L. Martin, K. L. Sharpe.

Davidson: Gerald Keith [Final], 7 Lynas Gardens, Grassendale, Liverpool, 19. Sir Alfred Shennan, A. N. Holt, F. J. M. Ormrod.

Davies: Frederick Paul (Arch. Assoc. (London): Sch. of Arch.), 7A Kings Road, Richmond, Surrey. R. F. Jordan, J. A. Slater, R. H. Uren.

Davis: Norman Charles [Final], 256 Haslucks Green Road, Shirley, Birmingham. A. Douglas Jones, T. M. Ashford, Herbert Jackson.

Day: Maurice Reginald [Final], 16 St. Andrews Road, Henley-on-Thames, Oxon. J. S. Walkden and applying for nomination by the Council under Bye-law 3(*d*).

Denham: Keith Lionel [Final], 21 Queen's Road, Sandown, Isle of Wight. A. C. Townsend, Frank Mellor, Vernon Aldridge.

Dickinson: Trevor, D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 278 Ormskirk Road, Upholland Moor, Nr. Wigan, Lancs. T. W. Marwick, W. I. Thomson, J. R. McKay.

Dickson: William, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 24 Frankby Road, Anfield, Liverpool, 4. Prof. R. Gardner-Medwin, Sir Alfred Shennan, R. A. Threadgold.

Dixon: Donald Arthur Edward, Dipl.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 61 College Road, Great Crosby, Liverpool, 23. Prof. R. Gardner-Medwin, E. N. Clifton, W. H. Gunton.

Dobb: Arthur Joseph [Final], 71 Appach Road, Brixton, S.W.2. Cecil Stewart, P. G. Fairhurst, B. L. Moir.

Drought: Thomas Ralph [Final], The Shieling, Burnham-on-Sea, Somerset. A. S. Gray, G. D. G. Hake, W. H. Watkins.

Duckworth: Douglas Alexander (Arch. Assoc. (London): Sch. of Arch.), 19 Chilcott Road, Watford, Herts. R. F. Jordan, Arthur Korn, Miss J. G. Ledeboer.

Dumpress: Philip William [Final], 1 Churchmore Road, Streatham Vale, S.W.16. C. G. Stillman, R. T. Grummant, Eric Pettengell.

Dunne: J. Maurice [Special Final], Coolmaine, Malahide, Co. Dublin, Eire. J. O'H. Hughes, P. J. Munden, Raymond McGrath.

Durell: (Miss) Christine Ann [Final], 'Brackendale', Crowborough Road, Saltdean, Brighton, Sussex. Applying for nomination by the Council under Bye-law 3(*d*).

Ellison: Eric Doig [Final], 2 Milton Avenue, Cambuslang, Glasgow, Lanarkshire. Prof. W. J. Smith, J. A. Coia, W. Underwood.

Elson: Stanley [Final], 14 Middle Way, Streatham, S.W.16. Paul Nightingale, E. E. Somake, D. Nightingale.

Evans: Martin Philip William (Arch. Assoc. (London): Sch. of Arch.), 2 Lansdowne Walk, W.11. Applying for nomination by the Council under Bye-law 3(*d*).

Fairbairn: Kenneth Shaw [Final], 72 Madison Avenue, Ward End, Birmingham, 8. A. Douglas Jones, J. F. R. Gooding, G. A. G. Miller.

Fairs: Ernest [Special Final], 19 West End Terrace, Norman Lane, Eccleshill, Bradford, Yorks. H. W. Barker, Eric Morley, G. A. Crockett.

Fawcett: Edward Stokoe [Final], 34 Station Road, Cambridge. H. C. Hughes, W. E. Marston, T. S. Shearer.

Fernley: Clifford [Final], 57 Newton Street, Hyde, Cheshire. H. T. Seward, E. S. Benson, Cecil Stewart.

Flower: Roy Harold William, Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 227, Clifton Road, Rugby, Warwickshire. A. Douglas Jones, T. M. Ashford, A. R. Young.

Francis: Joseph Whitefield [Special Final], 17 Cloverhill Terrace, East Kilbride, Lanarkshire. James Taylor, A. G. Henderson, W. J. B. Wright.

Franklin: Rodney Gurney [Final], 34 Stubbington Avenue, North End, Portsmouth, Hants. V. G. Cogswell, C. W. Wilkins, F. Mellor.

Fraser: James Alexander, D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), 29 Niddrie Marischal Crescent, Edinburgh. Donald Jack, A. C. S. Auld, Frank Wood.

Fraser: Ralph Stanley [Final], 162 Northview Drive, Westcliff-on-Sea, Essex. J. M. Scott, A. S. Belcham and applying for nomination by the Council under Bye-law 3(*d*).

Gathern: Raymond Charles Harry [Final], 57 London Street, Worthing, Sussex. W. F. Granger, L. G. Pargiter, A. C. Hopkinson.

Gibson: Frederick Raymond [Special Final], 8 Ilchester Mansions, Kensington, W.8. Arthur Korn, Edwin Rice, Paul Nightingale.

Gibson: Kenneth Malcolm, Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 34 Osborne Road, Palmers Green, N.13. J. S. Walkden, David Jenkin and applying for nomination by the Council under Bye-law 3(*d*).

Gildersleeve: Roger Francis, Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 'Rosefield', The Park, Sidcup, Kent. J. S. Walkden, H. A. Hall, H. C. D. Whinney.

Grace: Francis Roland, Dipl.Arch. (U.C.L.) (Bartlett Sch. of Arch.: Univ. of London), 2 Raymond Road, Wimbledon, S.W.19. Prof. H. O. Corfiato, Bernard George, R. C. White-Cooper.

Grant: James Lennox, D.A. (Glas.) (Glasgow Sch. of Arch.), 'Saryune', 10 Granville Street, Helensburgh, Dunbartonshire. Prof. W. J. Smith, William McCrea, W. A. P. Jack.

Gray: (Miss) Sybil Mary, Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 47 Kenton Gardens, Kenton, Middlesex. C. J. Epril, J. S. Walkden, David Jenkin.

Greenwood: Denis, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 'Oakwood', 296 Saddleworth Road, Greetland, Nr. Halifax. Prof. L. B. Budden, Prof. R. Gardner-Medwin, M. G. Gilling.

Gregory: Anthony, B.A. (Cantab.) (Arch. Assoc. (London): Sch. of Arch.), Harrington Lodge, Petersham, Surrey. Christopher Green, J. R. Atkinson, A. F. B. Anderson.

Hadwick: Geoffrey [Final], 7 Westville Gardens, Kingway, Manchester, 19. Cecil Stewart, W. C. Young, Francis Jones.

Hall: Peter, B.A.(Cantab.) [Final], Lime Tree Cottage, Bourn, Cambs. H. C. Hughes, W. P. Dyson, D. W. Roberts.

Hammond: Frederick William [Final] 0 11 Nell Gwynn House, Sloane Avenue, Chelsea, S.W.3. H. Andrew, H. C. Upton, F. J. Horth.

Harbott: Colin Charles [Final], 102 Longwood Gardens, Ilford, Essex. D. W. Aldred, F. G. A. Hall, K. J. Lindy.

Hauser: Grahame Otto, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 319 Oxhill Road, Handsworth, Birmingham, 21. Prof. R. Gardner-Medwin, Prof. L. B. Budden, W. N. Hawkes.

Helyar: Leonard [Special Final], 5 The Triangle, Priorswood, Taunton. R. O. Harris, R. M. Hewlett, C. G. Toy.

Henton: Aubrey Stewart [Final], 3 Chesterfield Road, West Ewell, Surrey. Applying for nomination by the Council under Bye-law 3(*d*).

Higson: Geoffrey Tunnah, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 82 North Sudley Road, Liverpool, 17. Prof. L. B. Budden, F. X. Velarde, Prof. R. Gardner-Medwin.

Hodgson: Leslie Trevor, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 120 Gough Road, Edgbaston, Birmingham, 15. Prof. R. Gardner-Medwin, E. Holman, H. L. Hare.

Horner: Reginald, Dip.Arch. (Nottm.) (Nottingham Sch. of Arch.), Tolney Lane, Newark, Notts. J. A. Tadman and the President and Hon. Secretary of the Nottingham, Derby and Lincoln Society of Architects under Bye-law 3(*a*).

Howitt: John Piggin [Special Final], Bentinck Buildings, Wheeler Gate, Nottingham. C. H. Calvert, C. F. W. Haseldine, C. E. Howitt.

Hudson: Brian [Final], 8 Selkirk Avenue, Werneth, Oldham, Lancs. C. Stewart, L. C. Howitt, G. B. Howcroft.

Hutchison: James, D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 147 Granton Road, Edinburgh, 5. Applying for nomination by the Council under Bye-law 3(*d*).

Hutton: Anthony Thackeray, Dipl.Arch. (Oxford) (Sch. of Tech. Art and Commerce, Oxford: Sch. of Arch.), 17 Hid's Copse Road, Cumnor Hill, Oxford. J. R. Tolson, H. W. Smith, G. R. Hutton.

Hynch: Gordon Robert [Final], 23 First Avenue, Hove, Sussex. K. E. Black, A. G. Nisbet, O. D. Pearce.

Ingram: Derick William, Dipl.Arch. (Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.), 103 High Street North, East Ham, E.6. T. E. Scott, Miss J. G. Ledeboer, E. V. Harris.

Jackman: Harry Brian, B.A.(Arch.) (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 128 Redesdale Gardens, Lawnswood, Leeds, 6. Prof. R. A. Cordingley, Eric Morley, H. Jackman.

Jeffery: Edgar Charles, A.R.I.C.S. [Special Final], 43 Albany Road, New Malden, Surrey. Applying for nomination by the Council under Bye-law 3(*d*).

Johnston: Nicholas John, B.A. (Cantab.) [Final], West Hollam Lodge, Nr. Fareham, Hampshire. W. P. Dyson, H. C. Hughes, D. W. Roberts.

Jones: John Nuttall, A.R.I.C.S. [Special Final], 15 West Mall, Kensington, W.8. D. A. Grant, Sir Thomas Bennett, M. L. Winslade.

Jones: Norman William Percy, Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 2 Cannock Road, The Scotlands, Wednesfield, Wolverhampton, Staffs. A. Douglas Jones, T. M. Ashford, G. A. G. Miller.

Jones: Peter Allen (Arch. Assoc. (London): Sch. of Arch.), 3 The Terrace, Shoreham, Sevenoaks, Kent. Henry Elder, George Fairweather, Arthur Korn.

Jones: Thomas Lloyd (Birmingham Sch. of Arch.), 28 High Street, Llangefni, Anglesey, N. Wales. C. St. C. Oakes, A. Douglas Jones, P. M. Padmore.

Kain: Raymond Douglas [Special Final], 23 Belmont Avenue, Palmers Green, N.13. T. E. Scott and applying for nomination by the Council under Bye-law 3(*d*).

Kelly: Colm Paul, B.Arch. (N.U.I. Dublin) (Univ. Coll., Dublin, Ireland: Sch. of Arch.), 87 Merrion Square, Dublin. J. V. Downes, Vincent Kelly, D. P. Hanly.

Kerss: John Elliott, Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 43 Northolt Avenue, Bishop's Stortford, Herts. J. S. Walkden and applying for nomination by the Council under Bye-law 3(*d*).

King: Ernest Stanley, Dip.Arch. (Leics.) (Leicester Coll. of Art and Tech. Sch. of Arch.), 10 East Park Parade, Northampton. F. Chippindale, H. R. Surridge, R. W. H. Vallis.

Kruchek: Frank Michael [Special Final], 'Cavendish Hill', Cavendish Terrace, Carlisle. J. H. Haughan, C. B. Martindale, E. E. Somake.

Lane: John Graham (Arch. Assoc. (London): Sch. of Arch.), Garden Flat, No. 1 Belsize Grove, Hampstead, N.W.3. Arthur Korn, Henry Elder, George Fairweather.

Latham: Roy, Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 238 Ladyshot, Harlow, Essex. Prof. R. A. Cordingley, Prof. Clifford Holliday, Frederick Gibberd.

Leighton: Edwin Samuel [Special Final], Tobarcooran, Carnmoney, Belfast. R. S. Wilshere, A. F. Lucy, T. R. Eagar.

Long: Ivor Desmond [Special Final], 65 Festival Crescent, Green Lawn, New Inn, Mon. Morgan Willmott, C. L. Jones, C. F. Bates.

Long: Kenneth Starling [Final], 'Killin Cottage', Agates Lane, Ashtead, Surrey. Paul Badcock, C. H. Rose, William Sadler.

Lord: Roger Briggs, B.A.(Arch.) (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 79 Lake Bank, Littleborough, Lancs. Prof. R. A. Cordingley, H. T. Seward, F. L. Halliday.

Luder: Harold Owen [Final], 9 Penford Street, Myatts Fields, S.E.5. Applying for nomination by the Council under Bye-law 3(*d*).

McClenaghan: Alexander [Special Final], 50 Watson Street, High Blantyre, Lanarkshire. L. W. Hutson, J. A. Coia, G. G. McLean.

McDonald: David Wylie, D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), 16 Pitkerro Road, Dundee. John Needham, G. C. Young, T. H. Thoms.

McLaren: Dudley Walter [Final], 26 Church Lane, Hornsey, N.8. D. W. Aldred and applying for nomination by the Council under Bye-law 3(*d*).

McLean: Thomas [Special Final], 47 High Street, Haddington, East Lothian. J. R. McKee, W. E. Hollins, Frank Wood.

MacKenzie: James Sutherland, Dip.Arch. (Abdn.) (Aberdeen Sch. of Arch.: Robert Gordon's Tech. Coll.), 43 Fonthill Road, Aberdeen. E. F. Davies, J. G. Marr, A. G. R. Mackenzie.

McNicol: Leo Patrick [Final], 19 Clee Road, Oldbury, Worcs. James Taylor, Prof. W. J. Smith, F. L. Randle.

Malone: Peter Elwin, B.A. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 7 Ranmoor Crescent, Sheffield, 10, Yorks. Prof. Stephen Welsh, H. B. Leighton, Robert Cawkwell.

Malson: Barry William Cole [Special Final], 12 Tennyson Avenue, Chesterfield. Clifford Bond, C. F. W. Haseldine, J. W. M. Dudding.

Maney: David John, Dipl.Arch. (Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.), 77 Dunton Road, S.E.1. T. E. Scott, Ernest Seel, D. D. Harrison.

Manser: Michael John, Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 6 Burgh Heath Road, Epsom, Surrey. Reginald Vaughan, Graham Dawbarn, F. M. Rutter.

Marner: Dudley Lionel Sydney Davies [Special Final], 'Shimlan', 131 Salmons Lane, Whyteleafe, Surrey. Edwin Rice, Z. Sirotkin, L. G. Pargiter.

Marshall: Victor Derek [Final], 65 Marcot Road, South Yardley, Birmingham, 26. C. F. Martin, D. A. Goldfinch, C. E. M. Fillmore.

Mathewson: Arthur John [Special Final], 7B St. Bartholomews Close, Norwich, Norfolk. B. E. Dixon, S. J. Wearing, F. H. Swindells.

Mayne: Eric, A.A.Dipl. (Arch. Assoc. (London): Sch. of Arch.), 21 Kings Farm Avenue, Richmond, Surrey. Henry Elder, George Fairweather, James Melvin.

Menage: Bernard Adolphe, A.A.Dipl. (Arch. Assoc. (London): Sch. of Arch.), 11 Onslow Road, New Malden, Surrey. A. A. Briggs, Henry Elder, Bryan Westwood.

Montefiore: Derek John (Arch. Assoc. (London): Sch. of Arch.), 11 Phillimore Place, W.8. Alister MacDonald and the President and Hon. Secretary of the Architectural Association under Bye-law 3(*b*).

Morgan: Lindsay Rhys, B.A.(Arch.) (London) (Bartlett Sch. of Arch.: Univ. of London), 79 Dale Hall Lane, Ipswich, Suffolk. Prof. H. O. Corfiato, R. C. White-Cooper, Thomas Ritchie.

Morter: Ronald, Dip.Arch. (Leics.) (Leicester Coll. of Art and Tech. Sch. of Arch.), 47 Church Lane, Calow, Nr. Chesterfield, Derbyshire. Clifford Bond, S. Penn Smith, T. W. Haird.

Mortimer: Roger William Andrew [Final], The Rectory, Okeford Fitzpaine, Blandford, Dorset. T. H. B. Burrough, J. N. Meredith, E. H. Button.

Murphy: Denis Yelverton [Final], Oakwood, Oxshott Road, Leatherhead, Surrey. E. U. Channon, S. R. Edwards, H. J. Hammick.

Naden: Frank Ronald [Special Final], 19 Eversley Avenue, Leek, Staffs. A. C. H. Stillman, J. A. Pickavance, C. W. Box.

Neal: John Gordon, Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), Flat 1, Station Road, Solihull, Nr. Birmingham. A. Douglas Jones, T. M. Ashford, E. Watson.

Neville: Colin Charles [Final], Windrush, Montefiore Avenue, Ramsgate, Kent. Applying for nomination by the Council under Bye-law 3(*d*).

Nicholls: Robert Perry, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 6 Castle Drive, Heswall, Wirral, Cheshire. Prof. R. Gardner-Medwin, Prof. L. B. Budden, F. X. Velarde.

Nichols: Walter Herbert Edwin [Special Final], 8 Chippenham Walk, Harold Hill, Romford, Essex. Applying for nomination by the Council under Bye-law 3(*d*).

Nicholson: Christopher, Dip.Arch. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle upon Tyne: Sch. of Arch.), c/o County Architect, Shire Hall, Cambridge. Prof. W. B. Edwards, Prof. J. S. Allen, J. H. Napper.

O'Keeffe: Patrick, Dip.Arch. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 8 Pembroke Road, Walthamstow, E.17. A. M. Chitty, Prof. Stephen Welsh, H. B. Leighton.

Oltmanns: Peter [Special Final], 22 Belgrave Square, S.W.1. Raymond McGrath, J. O'H. Hughes, J. V. Downes.

ONeill: Anthony Michael, B.Arch. (N.U.I. Dublin) (Univ. Coll., Dublin, Ireland: Sch. of Arch.), Charleton Villa, Newbridge, Co. Kildare, Ireland. J. V. Downes, J. O'H. Hughes, Raymond McGrath.

Orford: Thomas Kirkpatrick, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), Lake House, Mobberley, Knutsford, Cheshire. Prof. R. Gardner-Medwin, W. C. Young, Sir Hubert Worthington.

Orr: William Paton, D.A. (Glas.) (Glasgow Sch. of Arch.), 26 Lancaster Terrace, Hyde Park, W.2. C. W. Box, B. W. Turnbull, L. K. Hett.

Ozolins: Laimons Knud Eugen, B.A.(Arch.) (Lond.) (Bartlett Sch. of Arch.: Univ. of London), 87 Eaton Place, S.W.1. Prof. H. O. Corfiato, R. C. White-Cooper, S. L. Thomson.

Paine: John Warwick [Special Final], 5 Brookhouse Road, Caton, Nr. Lancaster. C. E. Pearson, E. P. Mawson, Thomas Duffy.

Palmer: Michael John Davenport [Final], 45 Russell Road, Kensington, W.14. J. S. Walkden, G. M. Adie, F. C. Button.

Palmer: Oliver Evans (Arch. Assoc. (London): Sch. of Arch.), 48A Redcliffe Road, S.W.10. Sir Edward Maufe, Howard Robertson, Sir Hugh Casson.

Parker: Norman Chris Charles [Final], 88 Bridle Road, Shirley, Croydon, Surrey. J. S. Walkden, A. J. Johnson, Michael Waterhouse.

Parry: Arthur Reginald [Special Final], 81 Burnham Way, W.13. E. E. Rosenberg, F. R. S. Yorke, L. A. Chackett.

Partridge: Barry [Final], Heath Bank, Kidderminster Road, West Hagley, Worcs. J. H. Folkes, Hubert Clist, Herbert Jackson.

Paul: Alexander Davidson, D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 'Craigmore', Newland Avenue, Bathgate, West Lothian, Scotland. J. R. McKay, T. W. Marwick, W. I. Thomson.

Pearcey: Peter Harold Roy, Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 12 Woodriffe Road, Leytonstone, E.11. J. S. Walkden, E. W. Lewis and applying for nomination by the Council under Bye-law 3(*d*).

Pearson: Richard Dillon, Dip.Arch. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 97 Toftwood Road, Sheffield, 10. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs.

Pepper: (Miss) Patricia Winifred, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 'The Chestnuts', Beech Avenue, Worcester. Prof. R. Gardner-Medwin, A. G. Bullen, R. R. Young.

Pickford: (Miss) Valerie Antonia [Final], West View, Windsor Road, Oldham, Lancs. Cecil Stewart, J. H. Bourne, F. M. Reynolds.

Pillinger: George Dennis [Final], County Architect's Dept., County Hall, Ipswich, Suffolk. J. S. Syme, E. J. Symcox, A. V. Lobban.

Piper: Gerald Benjamin [Final], Tyringham, Beatty Drive, Alverstoke, Gosport, Hants. A. C. Townsend, G. J. Jolly, J. E. Tyrrell.

Podleski: Czeslaw [Final], 13 Lichfield Road, Kew Gardens, Richmond, Surrey. F. L. Preston, J. M. Easton, Howard Robertson

Prescott: John Alfred, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 25 Parkfield Road, Liverpool, 17. Prof. R. Gardner-Medwin, B. A. Miller, F. X. Velarde.

Quin: John Friel [Special Final], 20 Chapel Lane, Wigan, Lancs. J. M. Smith, R. M. McNaught, C. W. Box.

Ramsay: Robert, Dip.Arch. (Abdn.) (Aberdeen Sch. of Arch.: Robert Gordon's Tech. Coll.), 55 Cummings Park Crescent, Northfield, Aberdeen. E. F. Davies, J. A. O. Allan, J. A. Allan.

Randall: David Ernest [Final], 641 Old Kent Road, S.E.15. Frederick Barber, Edwin Rice, J. W. Spink.

Randell: James Henry, D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 12 Bath Street, Portobello, Midlothian. David Carr, Frank Wood, J. R. McKee.

Read: Harry Spencer [Final], 'Hillylands', Weston Park, Bath. Humphrey Goldsmith, Miss Molly Taylor, T. W. Snailum.

Reeves: Eric Stanley [Special Final], 54 Hollinwell Avenue, Wollaton Road, Nottingham. Elie Mayorcas, A. B. Waters, C. F. W. Haseldine.

Reyniers: Peter Edward James, A.A.Dipl. (Arch. Assoc. (London): Sch. of Arch.), 80 Barn Hill, Wembley Park, Middlesex. Henry Elder, George Fairweather, Denis Poulton.

Riche: Donald John Leslie, Dipl.Arch. (Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.), Sunfold, Lewins Road, Gerrards Cross, Bucks. Howard Lobb, A. M. Chitty, K. J. Lindy.

Riley: Rupert Brooke, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), Trafford House, The Serpentine South, Blundellsands, Liverpool, 23. Prof. R. Gardner-Medwin, Sir Alfred Shennan, R. A. Threadgold.

Ritter: John Albert [Final], 23 Oaklands Avenue, Isleworth, Middlesex. J. S. Walkden, David Jenkin, J. W. Buchanan.

Robinson: Robert Frederick Paul [Final], 80 The High Road, Kilburn, N.W.6. J. S. Walkden, Morgan Willmott, C. P. Williams.

Roe: Stuart Alan [Final], 14 Cliff Road, Carlton, Nottingham. A. E. Eberlin, L. Darbyshire, T. N. Cartwright.

Ross: Alan [Special Final], Manor Cottage, Alexandra Road, Whitstable. H. Anderson, H. C. Ashenden, Anthony Swaine.

Sandwell: Sydney Thomas [Special Final], 18 North Close, Alverstoke, Gosport, Hants. J. E. Tyrrell, A. C. Townsend, V. G. Cogswell.

Sargent: John Roy Alfred, B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 51 Brooklands, Bishop Auckland, Co. Durham. Prof. R. Gardner-Medwin, W. C. Ellis, F. C. Saxon.

Schofield: Frederick Bryce [Final], 40 Harcourt Road, Accrington, Lancs. John Watt, F. N. Pinder, E. T. A. Smith.

Selby-Green: Michael (Arch. Assoc. (London): Sch. of Arch.), 69 London Road, Tunbridge Wells, Kent. Henry Elder, R. E. Enthoven, S. R. Pierce.

Selkirk: Alexander Peter, D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 602 Duncan House, Dolphin Square, S.W.1. Applying for nomination by the Council under Bye-law 3(*d*).

Shaw: Charles Roger [Final], 'Ingledene', 21 Woodhouse Lane, Brighouse, Yorkshire. Norman Culley, Noel Pyman, W. A. Ledgard.

Shawcroft: Brian [Final], 53 Heather Way, Romford, Essex. D. W. Aldred and applying for nomination by the Council under Bye-law 3(*d*).

Shepherd: James Hunter, D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), 3 Cadham Villas, Markinch, Fife. John Needham, T. H. Thoms, G. C. Young.

Spashett: Ernest Trevor [Special Final], 33 Clee Road, Oldbury, Worcestershire. F. G. Drewitt, R. F. Wheatly, F. L. Randle.

Spooner: Frank James [Final], 43 Shalimar Gardens, Acton, W.3. Paul Nightingale, Edwin Rice, D. Nightingale.

Spray: Geoffrey Frank [Final], 'Lynwood', 41 Higher Compton Road, Hartley, Plymouth. E. U. Channon, J. A. Powell, Vyvyan Salisbury.

Stables: John Margerison [Final], 75 Grafton Road, Keighley, Yorkshire. Benjamin Chippindale, W. H. King, Noel Pyman.

Stachniewski: Jan [Final], 94 Sorrell Road, Nuneaton, Warwickshire. Thomas Ritchie and the President and Hon. Secretary of the Architectural Association under Bye-law 3(*b*).

Stark: John George [Final], Manor Farm, Wyke Regis, Weymouth. A. C. Townsend, J. V. Nisbet, R. L. Reynish.

Stephens: Thomas George, M.B.E. [Special Final], 84 Queen Mary's Buildings, Stillington Street, Westminster, S.W.1. G. R. Taylor, C. W. Box, G. L. D. Hall.

Stephenson: Arthur [Final], 28 The Glen, Norwood Green, Southall, Middlesex. J. S. Walkden, H. E. Foreman, C. G. Stillman.

Stevenson: John David, Dipl.Arch. (Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.), 30 Mavis Avenue, Ewell, Surrey. T. E. Scott, Ernest Seel, D. D. Harrison.

Stone: Peter Reginald [Final], 19 Hanger Court, Hanger Green, Ealing, W.5. W. H. Watkins, A. S. Gray, A. C. Fairtlough.

Stott: Francis Richard, Dip.Arch., Dip.T.P. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 93 Rainford Road, Windle, St. Helens, Lancs. Prof. R. A. Cordingley, J. P. Nunn, T. L. Viney.

Stout: Ian, D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), 43 Dalgleish Road, Dundee. John Needham, G. C. Young, T. H. Thoms.

Street: Alan Peter, Dip.Arch (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 6 Balmain Road, Davyhulme, Nr. Manchester. Prof. R. A. Cordingley and applying for nomination by the Council under Bye-law 3(*d*).

Stringer: Peter Haydn [Final], 'Kingussie', Wakefield Road, Denby Dale, Nr. Huddersfield. Norman Culley, H. Bennett, A. W. Glover.

Stroud: Eric Albert [Special Final], 47 De-la-hay Avenue, Stoke, Plymouth, Devon. E. U. Channon, S. R. Edwards, H. J. Hammick.

Swinson: Albert Henry [Final], 158 Park Lane, Macclesfield. Prof. R. A. Cordingley, J. P. Nunn, Arthur Clayton.

Syborn: Victor Jack [Special Final], Birdshill Croft, Steel's Lane, Oxshott, Surrey, R. P. Baines, J. N. Parr, C. G. White.

Thomas: Gruffydd John Wynne, M.A. (Cantab.) [Final], 55 Park Grove, Derby. F. L. Preston, J. M. Easton, Howard Robertson.

Thomas: Jeremy, B.A. (Cantab.) (Arch. Assoc. (London): Sch. of Arch.), 5 Seymour Walk, S.W.10. Guy Morgan, Raglan Squire, H. C. Inglis.

Thurgood: Vernon John [Final], 28 Kimberley Road, Walthamstow, E.17. Frank Risdon and applying for nomination by the Council under Bye-law 3(*d*).

Toohill: Leonard [Final], 9 Wynnwood Avenue, Blackpool. H. T. Jackson, John Watt, F. N. Pinder.

Topham: Charles Watkin, Dip.Arch. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 1 Berry Street, Peel Green, Eccles, Nr. Manchester. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs.

Towler: Eric Robert [Special Final], 27 Haverhill Road, Stapleford, Cambridge. H. C. Hughes, W. E. Marston, T. S. Shearer.

Townsend: Sydney [Special Final], 115 Oakwood Avenue, Flanshaw Park, Wakefield, Yorkshire. D. A. Fowler, A. W. Glover, Spencer Silcock.

Trelawny-Ross: John P. T. (Arch. Assoc. (London): Sch. of Arch.), 37 Evelyn Gardens, S.W.7. A. F. B. Anderson, W. Marmorek, J. R. Atkinson.

Tulloch: Ian Gordon, D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), 'Taishan', Lour Road, Forfar, Angus. John Needham, G. C. Young, T. H. Thoms.

Turner: Ernest Neville [Final], 38A Louth Road, Scarthoe, Grimsby, Lincs. H. S. Hall, G. A. Crockett, J. Konrad.

Turner: Francis Anthony John [Final], 'Pax', Hythe End, Wraysbury, Nr. Staines, Bucks. Arthur Korn, Edwin Rice. F. J. Lander.

Turner: John Francis Charlewood (Arch. Assoc. (London): Sch. of Arch.), The Flat, The Court Lodge, Yalding, Kent. R. F. Jordan, C. J. Cable, Prof. L. W. T. White.

Vaughan: Percy Wykeham Fabin [Special Final], 30 Lake Road, Wimbledon, S.W.19. S. P. Anderson, R. G. Bell, F. J. Searley.

Vincent: Peter Gordon [Final], 82 Bond Road, Mitcham, Surrey. Applying for nomination by the Council under Bye-law 3(*d*).

Walford: (Mrs.) Dorice Constance, B.Arch. (Manitoba) (Univ. of Manitoba, Winnipeg, Canada: Dept. of Arch.), 17A West Bar, Banbury, Oxon. Dr. Wells-Coates, O. H. Nuttall, Frank Scarlett.

Warner: Brian Geoffrey [Final], 29 Lauriston Road, Brighton, 6, Sussex. K. E. Black, A. G. Nisbet, O. D. Pearce.

Waugh: Keith [Final], 3 Avon Court, Dallington Road, Hove, Sussex. K. E. Black, F. F. Howard, J. L. Denman.

Weeks: Leslie Alfred [Final], 148 Harlesden Road, Willesden, N.W.10. T. E. Scott, C. G. Bath, S. F. Burley.

Westlake: Raymond Frederick [Final], 93 Oakleigh Park Drive, Leigh-on-Sea, Essex. J. M. Scott, M. J. Slater, E. J. Symcox.

Wikeley: Nigel Derek Telford, Dip.Arch. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 183 Ladyshot, Harlow, Essex. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs.

Williams: Ronald George (Northern Poly. (London): Dept. of Arch.), 47 Melgund Road, N.5. T. E. Scott, L. T. Moore, F. M. Harvey.

Wilmot: Geoffrey Hamilton [Final], 45 West Brampton, Newcastle-under-Lyme, Staffs. J. Konrad, J. R. Piggott, Allanson Hick.

Wilson: Anthony Sanderson [Final], 10 The Crescent, Phippsville, Northampton. A. N. Harris, A. N. Thorpe, E. E. Somake.

Wrightson: Michael, Dip.Arch. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 17 Baydale Road, Darlington, Co. Durham. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs.

AS LICENTIATES (8)

Durell: Harry, Aycliffe Development Corporation; 42 Gilpin Road, Newton Aycliffe, near Darlington. Prof. Basil Ward, Prof. H. O. Corfiato, P. V. Mauger.

Eccles: Eric James, 7 Hamilton Square, Birkenhead; 10 Heath Drive, Upton, Cheshire. Kenmure Kinna, J. A. Haddy and applying for nomination by the Council under Bye-law 3(*d*).

Gibbons: Thomas George, 7 Mount Ephraim Road, Tunbridge Wells; 5 Nevill Park, Tunbridge Wells. A. T. Scott, D. L. Solomon, M. N. Castello.

Gornall: James Thomas, 3 Hobart Place, S.W.1; 39 Meadowside, Cambridge Park, Twickenham, Middlesex. Raglan Squire, Cecil Masey, Prof. Sir William Holford.

Lowman: Sydney John, Estate Department, Shell-Mex House, Strand, W.C.2; 'High Field', Salisbury Road, Worcester Park, Surrey. Applying for nomination by the Council under Bye-law 3(*d*).

Martin: Arthur, c/o Messrs. Edwards and Webster, 10 St. Mary Street, Chippenham, Wilts; Bourne House, Bath Road, Chippenham. I. B. M. Hamilton, Alan Chalmers, P. W. Edwards.

Sewell: Rupert Stanley Thomas, c/o Messrs. Easton and Robertson, 53 Bedford Square, W.C.1; 51 Ardfillan Road, S.E.6. Howard Robertson, J. M. Easton, F. L. Preston.

Simson: John Hedley, 78 Bewick Road, Gateshead, 8, Co. Durham. G. H. Gray, R. N. Mackellar, J. H. Napper.

Obituaries

Ernest Bates [*Retd. F*] died on 14 November 1953, aged 78.

Mr. Bates served articles with Messrs. Gordon, Lowther and Gunton from 1894 onwards and started personal practice in 1902. From 1925 to 1938 he was in partnership with the late Mr. William A. Taylor, and from 1934 onwards with Mr. William G. Sinning [*A*] who carries on the practice. Mr. Bates retired in 1951 but continued to act as consultant to the firm. His practice consisted of estate development, including housing, many private houses, shops, dairies both wholesale and retail, office buildings and industrial buildings in the Home Counties.

Mr. Bates was a Member of the Court of Common Council for the Ward of Cordwainer, Corporation of London, from 1940 to 1952, and Master of the Worshipful Company of Makers of Playing Cards in 1934.

Walter Dawson [*A*] died on 5 March, aged 60.

Mr. Dawson served his articles with Messrs. Millar & Cox, of Reading, from 1909 to 1914. He then held the post of estate architect and surveyor for the Lord Lieutenant of the county of Berkshire until 1915, from which date until 1919 he served with the armed forces. After the war he spent a year in the City Architect's office, Exeter, and then went to the Borough Engineer's Department (architectural section), Southend-on-Sea, where he remained until 1950. As such he worked on the normal range of buildings erected by local authorities, including schools, housing, institution buildings, fire stations and libraries.

Mr. Dawson was a part-time lecturer in building construction at the Municipal College, Southend-on-Sea.

Horace White [*Retd. F*] died on 4 February, aged 78.

Mr. White was articled to Mr. Edmund Egan [*A*] of Loughton, Essex, and began personal practice in that town in 1899. From 1933 until 1938, when he retired, he was in partnership with Mr. Harold Mileson [*F*], who still carries on the practice of White and Mileson.

Mr. White was for many years surveyor, in a part-time capacity, to the Loughton Urban District Council, and as such he was responsible for the 1926 town planning scheme—one of the earliest of such schemes.

From 1943 to 1946 Mr. White was Hon. Secretary of the West Essex Chapter of the Essex, Cambridge and Hertfordshire Society of Architects.

Members' Column

This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. H. G. Eisner [*A*] has taken up an appointment with the Education Committee of Middlesbrough as assistant architect (A.P.T. Grade V) and he will be pleased to receive trade catalogues, etc., at 59 Langridge Crescent, Berwick Hills, Middlesbrough, Yorks.

Mr. A. E. Weddle [*A*] has been appointed planning assistant (architect) in the office of the County Planning Officer, County Hall, Hobson Street, Cambridge.

PRACTICES AND PARTNERSHIPS

Mr. David du R. Aberdeen, A.M.T.P.I. [*F*], has taken into partnership **Mr. Peter Hatton** [*A*] and **Mr. J. S. Heathcote** [*A*]. The firm will now practise under the style of **David du R. Aberdeen and Partners** at the same address, 19 Southampton Place, W.C.1.

The practice of Messrs. Archard, Worrow and Hardy of 20 Lowndes Street, Knightsbridge, S.W.1, has been dissolved by mutual agreement. **Mr. A. Hodsdon Archard** [*F*] and **Mr. Ronald Hardy** [*A*] will continue to practise under the style of **Archard and Hardy** at the same address. **Mr. John Worrow** [*A*] will continue his practice under the style of **John Worrow and Partners** at 2 Gray's Inn Square, Gray's Inn, London, W.C.1.

Mr. W. H. Arend [*F*] has taken into partnership his son, **Mr. D. W. Arend** [*A*]. The practice, known formerly under the style of Emden, Egan & Co., will continue as **William H. Arend and Son.**

The partnership of Messrs. **Tony Branson** [*A*] and **C. P. Beauchamp** [*A*] has been dissolved by mutual consent. Mr. Branson will continue to practise from 9 London Road, Sevenoaks, and Mr. Beauchamp from 12 Mt. Ephraim Road, Tunbridge Wells.

Mr. R. A. Cooksey, T.D. [*F*], **Mr. G. M. Kingsford** [*F*] and **Mr. C. J. Curtis** have taken into partnership Mr. R. A. Cooksey's son, **Mr. A. P. Cooksey** [*A*]. The firm will continue to practise under the present style of **Arthur W. Cooksey and Partners** from 19 Garrick Street, London, W.C.2, with branch offices at Tonbridge, Kent, and Cranleigh, Surrey.

Mr. Kenneth W. Favell [*A*] has begun practice at The Old Cloisters, St. Peter's, Ruthin, N. Wales (Tel. 2501), where he will be pleased to receive trade catalogues, etc.

Mr. Roy E. G. Harrison [*A*] has taken over the architectural practice of Mr. J. E. Maynard, F.R.I.C.S., 1 Collington Avenue, Bexhill-on-Sea, and will practise from that address.

Mr. Martin Hutchinson [*L*] has taken into partnership **Mr. E. W. J. Mitchell** [*A*]. The firm will practise under the style of **Hutchinson and Mitchell,** 37 Great James Street, Bedford Row, W.C.1. (HOLborn 9060).

Mr. L. E. G. Hunt [*F*] has opened an office at 12a Bridge Street, Thetford, Norfolk, where he will be pleased to receive trade catalogues (Thetford 2282).

Mr. G. L. Auldo Jamieson [*L*] has retired from partnership in the firm of Dick Peddie, McKay and Jamieson. **Mr. J. R. McKay,** R.S.A. [*F*], has taken **Mr. Stanley W. Edgar** into partnership and the firm will now be known as **Dick Peddie and McKay,** 8 Albyn Place, Edinburgh, 2.

Messrs. Lander, Bedells and Crompton [*F*] of Harper House, Lamb's Conduit Street, W.C.1, have taken into partnership as from 1 January 1954 **Mr. Ian Fraser** [*A*] and **Mr. E. G. Claxton.**

Mr. Max Lock [*F*] has taken into partnership his former associates **Mr. G. J. Easton** [*A*], **Mr. G. W. King,** A.M.T.P.I. [*A*], and **Mr. L. J. Perlston** [*A*]. The practice continues at 7 Victoria Square, London, S.W.1 (VIC 7071), and 5a Harpur Street, Bedford (Bedford 5197), under the style of **Max Lock and Partners.**

Mr. Arthur J. Miller [*A*] has begun private practice at 21a Kings Road, Reading, Berks, and will be pleased to receive trade catalogues, etc., at that address.

Mr. Thomas Mitchell [*A*], 20 Bedford Square, has taken into partnership **Mr. Eric Cole** [*A*] who has been a member of his staff for several years. The name and address of the firm remain unchanged.

Mr. Alex Robertson [*L*] and **Mr. R. R. D. Wigley** [*A*] have entered into partnership at 44 The Parade, Cardiff (Cardiff 30259), and will be pleased to receive trade catalogues, etc.

Mr. Brian A. W. Savage [*A*] has opened an office at 12a Bell Street, Shaftesbury, Dorset, and will be pleased to receive trade catalogues, etc. (Shaftesbury 2524).

Messrs. Raglan Squire and Partners [*F*] have opened an office at the B.O.C. College of the University of Rangoon. Their address is c/o P.O. Box 1256, Rangoon, Burma, where they will be pleased to receive trade catalogues, etc.

Mr. R. A. Thomas [*F*] has taken into partnership his son, **Mr. Robin P. Thomas,** D.F.C. [*A*], and **Mr. Walter R. Hall** [*L*]. The practice is now being carried on under the style of **R. A. Thomas and Son** at Buckingham House, High Street, Portsmouth.

CHANGES OF ADDRESS

Mr. John J. Bevan [*A*], formerly of 1 New Court, Lincoln's Inn, W.C.2, has removed to 32 St. Margaret's Street, Canterbury.

Messrs. Burles and Newton, A.M.T.P.I. [*AA*], are now practising from 36/37 County Chambers, Weston Road, Southend-on-Sea (Southend 41540). The London address of the firm is 13 Christopher Street, E.C.2 (BIShopsgate 8655 and 2792).

Mr. G. L. Cadell [*A*] has removed his office and is continuing his practice from 12 Thayer Street, London, W.1 (HUNter 0402).

Miss Elizabeth Evans [*A*] has moved to 33 Victoria Road, London, W.8, where she will be pleased to receive trade catalogues.

Mr. M. E. Gooch [*A*] and **Mrs. S. M. Gooch** [*A*] have removed to 11 Albion Place, Northampton.

Mr. F. Greenwood [*A*] has removed his office to 18 The Green, Richmond, Surrey (RIChmond 6316).

The office and home address of **Mr. R. Kirtley Kinton** [*L*] is Silvertrees, St. Johns, Narborough, Leicester (Narborough 3082).

Mr. Sidney H. Loweth, F.S.A. [*F*], having retired from the appointment of Kent County Architect, is now living at Flat 3g, The Hotel Imperial, Hythe, Kent (Hythe 66720).

The new address of **Mr. John L. Midgley** [*A*] is 23b Cavendish Street, Keighley, Yorkshire.

The North Sydney address of **Messrs. Stephenson and Turner** (Mr. G. L. Moline [*F*], Mr. D. K. Turner [*F*], Mr. K. K. Sedgfield [*A*] and Mr. A. P. Stephenson [*A*]) is now 40 Miller Street, North Sydney, N.S.W., Australia.

Mr. Ivan Morris [*A*] is now on the staff of the City Architect, Sheffield, and his address is Flat 1, 18 Priory Road, Sheffield, 7.

The Rhodarc Group of Architects are moving to their new offices at 'St. Andrews House', Jameson Avenue, Salisbury, Southern Rhodesia, on 1 June 1954. The principals, **Mr. H. Darro Quelch** [*A*] and **Mr. J. R. Anderson** [*F*], will be pleased to receive trade catalogues at their new address. The telephone number, Salisbury 23276, remains unchanged.

The new address of **Mr. H. Sant** [*A*] is 43 Manor House, Marylebone Road, N.W.1 (AMBassador 4159).

Mr. Clive E. Shinn and **Mrs. Jeanne F. Shinn** [*A*] have removed to Mill Hill, Salhouse, Near Norwich, Norfolk.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Associate (30) with varied practical experience, seeks partnership in established practice in south-west counties. Some capital available. Box 47, c/o Secretary, R.I.B.A.

Licentiate seeks partnership or position leading thereto in southern or western counties. Small capital available. Box 48, c/o Secretary, R.I.B.A.

Associate (school trained) seeks appointment with view to partnership. Over 36 years' varied experience traditional and contemporary. Good designer and draughtsman. North-east Midlands preferred. Limited capital available. Box 49, c/o Secretary, R.I.B.A.

Associate, 33, with wide post-war practical experience seeks partnership or post leading thereto. Some capital available. Box 53, c/o Secretary, R.I.B.A.

Associate, 53, widely experienced, seeks a partnership or senior position leading thereto. Areas preferred, Southampton to Poole, or Bristol. Small capital available, possibly more later. Box 55, c/o Secretary, R.I.B.A.

ACCOMMODATION

Fellow requires 1,000 ft. super of office accommodation in Mayfair or Victoria Street area. Box 50, c/o Secretary, R.I.B.A.

The Royal Institute of British Architects, as a body, is not responsible for statements made or opinions expressed in the JOURNAL.

PERSONAL LIABILITIES

'I beg your pardon'—'I am so sorry'—these are everyday expressions. Usually our apology is accepted; we were negligent, but it was a small matter and soon forgotten.

Today may be different. You hesitate as you cross the road, a car skids and the driver is killed. Apologies won't help you now. If the Courts decide you are negligent the damages must be paid.

The remedy is a Personal Liability Insurance Policy. A yearly premium of 10/– gives an indemnity (any one accident) of £10,000 plus legal costs. All the members of the family are included, and pedal cycling risks are covered.

Proposal form from The Secretary, Insurance Department, Architects' Benevolent Society, 66 Portland Place, London, W.1.